Department of Economics and Finance

Master's in finance

Chair of Market Law and Regulation

Retail Investment Strategies and Product Governance: Enhancing Investor Protection and Supporting the Capital Markets Union

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INTRODUCTION

Over the past few decades, the European financial markets have experienced considerable changes, mostly because of the raise in the demand for increased transparency, market integrity, and investor protection after severe shocks that had significantly compromised the overall market structure.

The introduction of the Markets in Financial Instruments Directive II (MiFID II) in 2018 was a significant turning point in the regulatory history. It was a reaction to the shortcomings and difficulties brought to light by the global financial crisis of 2007-2008, especially in relation to investor protection and financial products regulation. The directive introduced a product governance framework aimed at guaranteeing that financial products are created and offered in a way that best meets the needs of investors, focusing particularly on retail investors who are frequently less qualified to understand the intricacies of financial instruments.

This study is justified by the crucial role that product governance plays within the European capital markets as a whole. It aims to contribute to a greater understanding of how regulatory measures might improve market stability, safeguard investors, and promote the growth of the Capital Markets Union (CMU) by analysing in detail all the nuances of the product governance architecture.

Several important research problems are addressed in this study: What are the main obstacles and possibilities related to the effective implementation of the product governance framework? What is the impact of MiFID II's product governance on retail investment strategies? To what extent does product governance help or hinder the Capital Markets Union's goals? The ultimate aim of this study is to provide exhaustive answers to these and more questions around the product governance regime.

This study’s main goal is to critically examine the product governance framework, paying particular attention on how it affects retail investors and how it supports the CMU, investigating the regulatory frameworks that guarantee financial products are created, authorised, and disseminated in a way that is consistent with the goals and requirements of the intended target market. The main scope of the analysis is the European Union with its regulatory framework, with particular emphasis on MiFID II and companion rules. The requirements for product governance, the duties of financial institutions, and the interactions between these rules and retail investment strategies will all be covered in detail.

This study will take advantage mainly of a qualitative research methodology which combines case studies, literature reviews, and legal analysis, to explore the whole product governance environment. The legal analysis will be based on the most relevant pieces of legislation governing product governance, focusing on the implications that MiFID II and other relevant directives and regulations have on investors and financial institutions. The literature review will cover scholarly works, government papers, and industry publications to provide a complete and thorough overview of product governance, retail investment strategies, and the CMU. Case studies of noteworthy occurrences, like the Global Financial Crisis and the Payment Protection Insurance (PPI) scandal, will be utilised to bring the discussion into more concrete and practical terms.

An entire section will be dedicated to the synergies between financial literacy and retail investment strategies. Does financial literacy influence individuals' participation in financial markets? This section will aim at providing a detailed and structured answer to this question. Based on real-world data, this section evaluates financial literacy by the means of surveys and empirical studies, in order to clarify the benefits of financial literacy on market participation, retail investors' decision-making, and more general financial market results by relying upon quantitative metrics and empirical findings. In particular, the empirical study will develop aspects that include the effects that improved financial literacy have on market participation and the impact of financial literacy programmes on students. Incorporating empirical evidence will not only reinforce theoretical discussions but will also guarantee that conclusions are grounded in quantifiable, real-world outcomes. This provides a thorough and data-driven viewpoint on the relevance of financial literacy in the current investing environment.

CHAPTER I

PRODUCT GOVERNANCE UNDER MiFID II

Origins and historical development of MiFID II

The Markets in Financial Instruments Directive II (MiFID II) is one of the most relevant regulatory frameworks implemented by the European Union (EU), created to address the main objectives of enhancing transparency across financial markets and investor protection, and improving the functioning of EU financial markets. MiFID II, which entered into force in 2018, reflects the EU's willingness to respond effectively to evolving market dynamics and the financial crises of the late 2000s (Veil, 2021).

The origins of MiFID II can be traced back to the 1993 Investment Services Directive (ISD), the first relevant EU-wide effort to harmonise financial markets regulation across Member States. In particular, the ISD was developed with the aim of establishing a unified market for investment services, promoting cross-border services and competition. However, the rapid evolution of financial markets made it clear that the ISD was insufficient in effectively keep under control the modern and complex financial instruments and services. This realisation led to the development of MiFID I, which became effective in 2007, just before the beginning of the global financial crisis. MiFID I expanded the scope of its predecessor (i.e., the ISD) to encompass a broader array of financial services and introduced more comprehensive rules on investor protection and market transparency (Moloney, 2014).

The global financial crisis put the strain on MiFID I, especially in terms of oversight and risk management, signalling the need for further regulatory improvements and evolutions. The global financial crisis of 2007-2008 revealed severe weaknesses in the regulatory frameworks of financial markets worldwide, including those established under MiFID I. In Europe, the crisis highlighted the need for more stringent regulation, particularly in areas such as market transparency, the trading of complex financial instruments, and the protection of retail investors. In fact, the financial crisis underscored the need to improve transparency rules, especially in the trading of over the counter (OTC) derivatives and other complex financial instruments which were at the core of the market crash. MiFID I's provisions proved to be inadequate to address these challenges, thereby leading to a comprehensive reassessment and the eventual development of MiFID II (Moloney, 2014; Acharya et al., 2010).

The development of MiFID II built on the need to pursue critical objectives, each reflecting the lessons learned from the financial crisis and the changing landscape of global financial markets.

A primary goal of MiFID II was to enhance transparency in all trading venues, particularly to address the rise of dark pools and other non-transparent trading practices that had become common under MiFID I (Veil, 2021).

MiFID II introduced strict pre- and post-trade transparency requirements for all financial instruments, thereby guaranteeing to all market participants the access to precise and timely information about trading activities (ESMA, 2023).

MiFID II put a strong emphasis on the protection of retail investors, often vulnerable to the risks entailed by complex financial products. The directive introduced stricter rules on product governance, requiring financial institutions to design products to be distributed to the appropriate target market, upon having carefully evaluated and identified it. The directive also improved the rigorousness of disclosure requirements, ensuring that investors received complete information about the risks and costs associated with financial products (Colaert, 2019).

Furthermore, the crisis shed lights on the growing relevance of new market structures, such as multilateral trading facilities (MTFs) and organized trading facilities (OTFs), which were insufficiently regulated under MiFID I. MiFID II included these entities under its regulatory framework to ensure that they operated under the same standards of transparency and oversight as traditional exchanges (Veil, 2021).

Finally, MiFID II searched to mitigate systemic risks, especially in the derivatives markets, by introducing new and stricter rules on transparency and reporting, as well as more stringent capital requirements for financial institutions. This was a direct response to the failures occurred during the financial crisis, where the lack of oversight and transparency had contributed to market instability (Acharya et al., 2010).

The development and implementation of MiFID II involved extensive consultation and collaboration across several levels of EU governance, including the European Commission, the European Parliament, and national regulators. The legislative process began with the European Commission's proposal in October 2011, followed by years of negotiation and refinement, culminating in the adoption of MiFID II in 2014 (Moloney, 2014).

The directive, together with the companion regulation MiFIR, came into force on January 3, 2018, determining a significant shift in the regulatory landscape of European financial markets (Veil, 2021).

The product governance regime

Product governance under the MiFID II regime entails a set of mandatory policies and procedures that financial institutions must have in place to ensure the correct development, approval, marketing, and ongoing monitoring of financial products. This framework is of paramount importance as it is designed to guarantee that the products are consistent with the needs, characteristics, and objectives of the intended target market and compliant with regulatory standards. Therefore, the ultimate aim of this regulatory framework is to protect the interests of investors, especially retailers, that most of the time do not have the adequate knowledge, set of skills, amount of time and capacity to appreciate what is involved in the sophistication of financial products (ESMA, 2023).

The scope of the product governance framework is broad and covers all the relevant steps of the life of a financial instrument, from its creation and development to sale and post-sale services, imposing stringent duties on both manufacturers and distributors (Hobza et al., 2018).

Morlino (2015), Hobza et al. (2018) and Colaert (2019) discuss about the two key actors in the product governance, namely, manufacturers and distributors of financial instruments, detailing their main functions and responsibilities.

The formers (usually investment firms) are the ones that structure financial products (the structuring process consists of the creation, development, designing and issuing of the product). An essential step in the creation of these products is the definition of a target market for each single product. The assessment of the target market is a critical process, pivotal to the product regime, and it will be analysed in detail later. The process is carried out throughout an in-depth analysis of the client base which the product is addressed to. MiFID II requires manufacturers of financial instruments to carefully analyse and to take into consideration the clients' knowledge, experience, financial situation, needs, characteristics, risk aversion and investment objectives, and to evaluate how these features are compatible with the product's risk profile. This process has the final aim to ensure that the product is appropriate for the target market. Also, manufacturers are required to carry out periodic reviews of the product and its interactions with the changing economic and financial environment, in order to be sure that the proposed financial instrument remains suitable for the initial client base of the target market.

Distributors, on the other hand, are responsible for bringing financial products to the market. They offer, recommend, or sell these instruments directly to clients. Distributors are obliged to match their distribution strategies with the guidelines established by the manufacturers in order to guarantee that the products are supplied to the relevant customer segments designated by the manufacturers. This involves assessing the clients' needs against the defined target market and providing adequate information and disclosure to clients, helping them make informed decisions. Distributors must also provide feedback to manufacturers about the performance of the products and any issues arising from their distribution, thus contributing to the continuous improvement of the product governance framework.

Objectives of product governance

The MiFID II product governance regime is a cornerstone of market integrity and investor protection; in fact, it primarily focuses on investor protection, market integrity, transparency, and ongoing suitability. Each of these objectives has a defined and explicit purpose and is of great importance for financial institutions, investors, and the market.

Investor protection

The primary objective of product governance under MiFID II is the safeguard of (retail) investors against the potential risks stemming from the sale of inappropriate financial products (Hobza et al., 2018).

Such protection is based on the underlying principle of ensuring that the financial products sold to clients are suitable for them. In fact, mis-selling (that is, the sale of "wrong" products that are not aligned with the clients' needs or understanding) may lead to significant financial losses, thus obliterating the credibility of the financial markets which the clients rely on. This may ultimately undermine investors' confidence in financial markets, thus inducing them to exit the market.

The protection of investors' confidence is of paramount importance as it is a main determinant of the stability and the correct and smooth functioning of financial markets. In fact, this confidence fosters investment and participation in the market, two essential aspects for liquidity, capital formation and economic growth.

Investor confidence contributes significantly to market stability and liquidity. When investors trust the market, they are more likely to invest their capital, trade securities, and engage in long-term investments. These activities increase market liquidity, thus making it generally easier for assets to be bought and sold at any point in time without significant price fluctuations (Mishkin, 2019).

Furthermore, financial markets are an important source of capital for businesses and governments. High investor confidence implies high investor participation into a liquid market; this environment allows companies to raise capital more efficiently through the issuance of stocks and bonds. Capital is essential for funding new projects, expanding operations and driving innovation, so it contributes to economic growth (Levine, 2005).

Finally, investors' confidence influences risk perception and drives investment decisions. A confident investor base is likely to be less risk averse, and therefore more willing to invest in a broader range of assets to include also those with higher risk profiles. This diversification is important for the pricing of risk in the market. If confidence vacillates, investors may prefer safer assets, thus causing a mispricing of risk and potentially creating bubbles in low-risk assets while leaving the riskier, potentially more innovative projects without the necessary funding (Baker & Wurgler, 2007).

As investors' confidence gets undermined, people may decide to exit the market. The consequences of this action may be dramatic. A significant exit of investors from the market, triggered most of the times by a loss of confidence, may imply severe market volatility or even crashes. In fact, a loss of confidence can lead to a withdrawal of funds that would reduce market liquidity, leading to increased volatility and instability. The sudden selling of assets would trigger a sharp delice in market prices, leading to huge losses of the overall market value. Such events are likely to reduce wealth not only for the exiting investors but also for those who decide to stay in the market (Bernanke, 2013; Shiller, 2015).

Moreover, as investors leave the market en masse, market depth would drop dramatically. Fewer participants and less capital available for trading translate in less orders and higher transaction costs and spreads, making it harder and costlier to trade assets. The resulting increase in the overall market costs can prevent further investment, exacerbating the problem of reduced liquidity (BIS, 1999).

Also, as investor confidence collapses and leads to large-scale market exits, the resulting instability can have systemic implications. A sharp decline in asset prices may force financial institutions to deal with solvency, ultimately leading to broader economic repercussions. This may have an impact on credit availability, reduce consumer spending, and reduce the pace of economic growth, creating a negative feedback loop that further depresses investor confidence (Acharya et al., 2010).

The MiFID II product governance regime prevents these situations to happen by requiring firms to establish a detailed target market for each product, as it was previously discussed.

Market integrity

Market integrity refers to the confidence of investors, market participants, and the public in general regarding the fairness, transparency, and efficiency of the financial markets. It is a cornerstone that ensures markets are run without manipulation, fraud, or unfair practices that could damage the interests of some participants. Market integrity maintains investor confidence and their belief that the market is a level playing field on which price incorporates all available information and in which everyone is treated equally and fairly. (Levine, 2005; Mishkin, 2019).

The product governance framework under MiFID II aims to prevent market manipulation or abuse, conflicts of interest, insider trading and other practices that could undermine market integrity. By requiring firms to assess and document the suitability of their financial products, and to be fully transparent about the disclosure of all relevant product information, MiFID II ensures that the issued financial products do not disproportionately benefit the issuer at the expense of the client and that investors are fully informed about the products they are buying. These rules aim at decreasing the risk of mis-selling, preventing the exploitation of information asymmetries that may lead to unfair advantages, and ultimately enhancing market fairness, all aspects that contribute to preserve market integrity (Veil, 2021).

Transparency

Transparency is an essential element of financial markets as it refers to the availability and clarity of information about financial instruments, market conditions, and institutional practices to all market participants without any kind of discrimination. It enables all participants to make informed investment decisions and reduces information asymmetry (Mishkin, 2019). At the same time, transparent markets foster efficient price discovery mechanisms, where asset prices accurately reflect all available information; this is essential for allocating resources and capital effectively within the economy (Baker & Wurgler, 2007). All these elements are crucial to preserve investors' confidence.

The MiFID II product governance regime ensures transparency through several mechanisms.

To begin with, the regime makes it mandatory for financial institutions to provide comprehensive disclosures about financial products. This includes information on the nature of the products, associated risks, costs, fees, and potential returns. For example, the European Securities and Markets Authority (ESMA) guidelines require that the information disclosed must be clear, accurate, not misleading, and that presented in a way that is understandable to the average retail investor. More complex products, such as derivatives and structured products, should be presented with an associated key information document (KID), to make sure that investors are fully aware of the product they are trading (Veil, 2021; ESMA, 2023).

Additionally, the regime also includes provisions for regulatory reporting. Financial institutions must report certain sensitive data to regulatory bodies like ESMA that in this way can oversee market activity and ensure compliance with transparency requirements. This also helps regulators identify and address potential risks or irregularities in the market. Transparency requirements therefore protect investor and foster trust in financial markets by holding institutions accountable for the information they provide (Veil, 2021).

Ongoing Suitability and Product Review

An essential aspect of product governance under MiFID II is the requirement for continuous monitoring and review of financial products, as to ensure that they remain suitable for the target market identified at the beginning of the process. This involves periodic assessments to determine whether a product still meets the needs of its intended clients or if changes in the market or regulatory environment make it necessary to modify either the product's features or distribution strategy. For instance, if a product initially designed for a certain risk profile becomes unsuitable due to changes in market conditions or client demographics, firms are required to intervene. This may lead firms to adjust the product, modify its target market, or even discontinue the product if it no longer serves the clients' best interests. This continuous approach is aimed at providing clients with periodically updated products that are always aligned with their needs, thus maintaining the product's relevance and appropriateness throughout its lifecycle. Furthermore, this mechanism allows investors to always be able to reassess their investment decisions based on up-to-date information (Colaert, 2019).

Regulatory framework

The regulatory framework for product governance under MiFID II (Markets in Financial Instruments Directive II) consists of a comprehensive set of rules aimed at ensuring that financial instruments are developed, marketed, and distributed in conformity with principles based on investor protection and safeguard of market integrity.

The framework includes detailed requirements for both manufacturers and distributors of financial products, covering aspects such as target market identification, product approval processes, distribution strategies, and ongoing product reviews.

Target market identification

MiFID II requires manufacturers to specify a target market for each financial instrument they deal with. According to Article 16(3) of MiFID II, investment firms "[…] shall specify an identified target market of end clients within the relevant category of clients for each financial instrument and shall ensure that all relevant risks to such identified target market are assessed and that the intended distribution strategy is consistent with the identified target market. An investment firm shall also regularly review financial instruments it offers or markets, taking into account any event that could materially affect the potential risk to the identified target market, to assess at least whether the financial instrument remains consistent with the needs of the identified target market and whether the intended distribution strategy remains appropriate." (Directive 2014/65/EU).

Article 9(9) of the Commission Delegated Directive (EU) 2017/593 further explores this concept, stressing the necessity for the competent authority to require firms to "identify at a sufficiently granular level the potential target market for each financial instrument and specify the type(s) of client for whose needs, characteristics and objectives the financial instrument is compatible. As part of this process, the firm shall identify any group(s) of clients for whose needs, characteristics and objectives the financial instrument is not compatible".

The aim of this provision is to align the characteristics of the investors with those of the financial instrument they are offered, given that financial products are created with a specific audience in mind. This means that each instrument will be tailored for a specific segment of investors, based on a set of comparable characteristics (e.g., investment objectives, knowledge, experience, financial situation, and risk aversion) they all share.

According to Hobza et al. (2018) and Colaert (2019), there exist three main types of target market.

The first one is the Positive Target Market, which gathers all the potential clients for whom the financial instrument would be suitable. These clients share similar characteristics in terms of knowledge, skills, financial situation, financial education, risk aversion and investment objectives, and such characteristics align with the features of the financial instrument.

Then there is the Negative Target Market, consisting of the set of clients whom the financial instrument is not suitable for. In fact, the characteristics of these clients are in direct contradiction with the features of the financial instrument. For example, a complex financial instrument which would require top-notch financial knowledge and skills to be fully understood would not be suitable for inexperienced clients. The negative target market is pivotal to prevent mis-selling, as it ensures that certain financial instruments are not offered to investors who are not sufficiently equipped to understand or bear the associated risks.

Finally, there is the so-called Grey Zone, which includes those clients that cannot easily and clearly be categorised as belonging either to the positive or the negative target market. In fact, the characteristics of these individuals would make them fall under both target markets simultaneously.

The grey zone requires careful evaluation because in some specific cases the financial instruments could still be offered to these clients as suitable for them, especially if the distributor provides sufficient guidance and ensures the product is consistent with the client's overall portfolio and objectives.

Hobza et al. (2018) clarifies that while the criteria used for classifying the target market and those used for assessing a product's suitability and appropriateness may overlap, the two processes serve distinct purposes and cannot be considered as one. Including a client in the positive target market does not automatically or necessarily mean that a financial instrument is suitable or appropriate for them. Conversely, a client belonging to the negative target market might still find a particular product suitable.

Nevertheless, the strict MiFID II product governance rules may have a (potentially unintended by the legislator) paternalistic effect that ultimately affects the subject of protection, that is, retail investors.

Product governance aims in fact at guaranteeing full suitability of the product for clients. This translates into an unavoidable reduction of the products that can be offered to certain sets of individuals. At the same time, in an attempt to fully comply with regulatory standards, financial institutions may self-limit certain behaviours, thereby leading to target markets identification that is stricter than necessary from an investor protection standpoint.

Additionally, fearing a heavy intervention of regulatory authorities in case of breach of regulatory duties, financial institutions may be reluctant to sell a product to clients identified as belonging to the negative target market or even the grey zone, even under the circumstances where this could be legally done (Colaert, 2019).

Target markets can more generally classified as potential or actual target markets. The former is identified by the manufacturer according to theoretical evidence and past experiences with similar products; the latter is more accurately defined by the distributor, who has direct contact with end clients and can therefore leverage more practical facts to perfect the manufacturer's broad target market identification and more narrowly align the product with the desired client base.

More specifically, manufacturers are mandated to share with distributors all the necessary and relevant information about the financial instrument, including specifications about the potential target market identified. This information constitutes the starting point from which distributors begin their evaluation. Distributors shall not act as passive recipients of this information, but rather they must be granted the autonomy to modify the target market based on their closer and more accurate knowledge of their clients. For instance, the potential target market identified by the manufacturer could be deemed too broad by the distributor. On the other hand, distributors may have the necessity to broaden the target market if they think the manufacturer selected a prospective target market that is too narrow and limited. (Hobza et al., 2018).

Product approval process and conflicts of interest

The product approval process under MiFID II is defined in Article 16a (paragraphs 1 and 2) of the Directive of the European Parliament and of the Council amending Directives (EU) 2009/65/EC, 2009/138/EC, 2011/61/EU, 2014/65/EU and (EU) 2016/97 as regards the Union retail investor protection rules, as "Member States shall ensure that investment firms which manufacture financial instruments for sale to clients establish, maintain, operate and review a process for the approval of each financial instrument and significant adaptations of existing financial instruments before it is marketed or distributed to clients (the product approval process). The product approval process shall contain all of the following: a specification of an identified target market of end-clients within the relevant category of clients for each financial instrument; a clear identification of the target market's objectives and needs; an assessment of whether the financial instrument is designed appropriately to meet the target market's objectives and needs; an assessment of all relevant risks to the identified target market and that the intended distribution strategy is consistent with the identified target market; in relation to financial instruments falling under the definition of packaged retail investment products in accordance with Article 4(1) of Regulation (EU) No 1286/2014 of the European Parliament and of the Council, a clear identification and quantification of all costs and charges related to the financial instrument and an assessment of whether those costs and charges are justified and proportionate, having regard to the characteristics, objectives and, if relevant, strategy of the financial instrument, and its performance ('pricing process'). The pricing […] shall include a comparison with the relevant benchmark, where available, on costs and performance […] When a financial instrument deviates from the relevant benchmark […] the investment firm shall perform additional testing and further assessments and establish whether costs and charges are nevertheless justified and proportionate. If justification and proportionality of costs and charges cannot be demonstrated, the financial instrument shall not be approved by the investment firm. An investment firm which manufactures financial instruments shall make available to distributors all information on the financial instrument and the product approval process that is needed to fully understand that instrument and the elements taken into consideration during the product approval process, including complete and accurate details on any costs and charges of the financial instrument.”.

The concept is further elaborated in the Commission Delegated Directive (EU) 2017/593. Article 9(1) of this directive claims that: "Member States shall require investment firms to comply with this Article when manufacturing financial instruments, which encompasses the creation, development, issuance and/or design of financial instruments. Member States shall require investment firms manufacturing financial instruments to comply, in a way that is appropriate and proportionate, with the relevant requirements […] taking into account the nature of the financial instrument, the investment service and the target market for the product."

This requirement makes it mandatory for manufacturers to have in place thorough and well-defined procedures for the approval of new products, to increase the likelihood that they align with the needs of the target market and to foster full compliance with regulatory standards. The process is aimed at ensuring that the instrument is designed in a way that fully meets the specific characteristics and objectives of the identified target market, thus minimising the risk of mis-selling and safeguarding financial markets integrity (Hobza et al., 2018; ESMA, 2023).

A crucial step of the product approval process consists of a comprehensive risk assessment to ensure that the financial instrument does not create negative externalities on investors or the whole market.

In order to approve a product, an investment firm must abide by specific regulations that require, among others, the need for a scenario analysis of the financial instruments to evaluate the likelihood of unfavourable outcomes and the conditions under which they might transpire. This aims at reducing the risk for the investor to experience a negative outcome from the investment. Additionally, financial products may jeopardise the stability or appropriate operation of the market as a whole. For this reason, investment firms must determine whether the financial instrument could pose a threat before opting to move forward with the launch of a particular product on the market.

Firms must as well assure that the product’s design does not lead to conflicts of interest and that it does not disproportionately make the best interest of the issuer to the detriment of the client.

In fact, the procedures and controls of an investment firm need to guarantee that financial instrument design satisfies the standards for the appropriate management of conflicts of interest, including compensation. When designing financial instruments, investment firms must take care to ensure that the instrument's features and design do not negatively affect end users or compromise market integrity (Veil, 2021).

Potential conflicts may also arise when the potential target market identified by the manufacturer and the actual one defined by the distributor do not align. For instance, a distributor’s actual target market might be narrower than the potential one, thereby excluding certain clients included in the manufacturer’s broader target market. In such case, the manufacturer could have an incentive to find an unlawful agreement with the distributor to keep the size of the original target market unchanged. To avoid such potential conflicts of interest, distributors must ensure that every step of the decision-making process is correctly documented and justified, making it available for regulatory authorities should they conduct a review on the market behaviour of such institution (Hobza et al., 2018).

Paragraphs 2 and 3 of article 9 deal exactly with provisions aimed at limiting potential conflicts of interest: “Member States shall require investment firms to establish, implement and maintain procedures and measures to ensure the manufacturing of financial instruments complies with the requirements on proper management of conflicts of interest, including remuneration. In particular, investment firms manufacturing financial instruments shall ensure that the design of the financial instrument, including its features, does not adversely affect end clients or does not lead to problems with market integrity by enabling the firm to mitigate and/or dispose of its own risks or exposure to the underlying assets of the product, where the investment firm already holds the underlying assets on own account. Member States shall require investment firms to analyse potential conflicts of interests each time a financial instrument is manufactured.”.

The rationale under this provision could be explained in light of historical occurrences such as the Global Financial Crisis of 2007-2008, where conflicts of interests in the rating agency industry proved to be a crucial factor in worsening the effects of the crisis. This highlights the importance of stringent rules for the product approval processes and management of conflict of interest as measures to shelter both investors and market stability (Acharya et al., 2010).

Additionally, investment firms are mandated to conduct regular reviews of the financial instruments to ensure ongoing suitability and adherence to regulatory standards and to keep detailed records of the entire product approval process meticulously both as a proof of compliance and to make them available to regulatory authorities upon request (Directive 2014/65/EU).

This regulatory framework grants national competent authorities (NCAs) a crucial role in enforcing the product approval process under MiFID II. In fact, while NCAs are not directly involved in the product approval process as it is an internal process of the investment firm, the NCAs monitor whether an investment firm complies with the regulatory requirements, and they are empowered to take all necessary measures aimed at ensuring full compliance with regulatory requirements (Veil, 2021).

Additionally, NCAs’ oversight experiences with firms’ attempts to comply with the product governance requirements can be gathered by ESMA to detail a list of good practices (for all the areas of product governance and the steps of the product approval process) that firms are strongly recommended to follow in order to increase the likelihood they fully comply with regulatory standards (ESMA, 2023).

Training and accountability

Article 16(2) of MiFID II and article 9(5) of the Commission Delegated Directive (EU) 2017/593 stress the importance of a competent staff, fully conscious of regulatory requirements. “An investment firm shall establish adequate policies and procedures sufficient to ensure compliance of the firm including its managers, employees and tied agents with its obligations under this Directive as well as appropriate rules governing personal transactions by such persons", and "Member States shall require investment firms to ensure that relevant staff involved in the manufacturing of financial instruments possess the necessary expertise to understand the characteristics and risks of the financial instruments they intend to manufacture.".

Firms must therefore establish appropriate training programs to ensure that MiFID II obligations, particularly those related to product governance and client interactions, are fully understood by key employees.

Manufacturers' responsibilities

Article 9(6-7) of the Commission Delegated Directive 2017/593 specifies that "Member States shall require investment firms to ensure that the management body has effective control over the firm's product governance process. […] Member States shall require investment firms to ensure that the compliance function monitors the development and periodic review of product governance arrangements in order to detect any risk of failure by the firm to comply with the obligations set out in this Article.".

Therefore, there are two different bodies within an investment firm that are responsible to assure that all the steps of the product approval process are carried out properly and thoroughly. The compliance function, on the one hand, must oversee the creation and periodic evaluation of the product monitoring measures. On the other hand, the investment firm's management body needs to have efficient control over the company's product governance procedure (Veil, 2021).

Distributors' strategies and responsibilities

Distributors' duties under MiFID II are specified in Article 24(2-3): " Investment firms which manufacture financial instruments for sale to clients shall ensure that those financial instruments are designed to meet the needs of an identified target market of end clients within the relevant category of clients, the strategy for distribution of the financial instruments is compatible with the identified target market, and the investment firm takes reasonable steps to ensure that the financial instrument is distributed to the identified target market. […] All information, including marketing communications, addressed by the investment firm to clients or potential clients shall be fair, clear and not misleading. Marketing communications shall be clearly identifiable as such." (Directive 2014/65/EU).

In order to improve investor protection, distributors are encouraged to adopt strict distribution strategies, especially for the distribution of complex financial instruments. For example, if a financial instrument is too complex for the average client within the positive target market, the distributor may offer the product only through a distribution strategy based on detailed and careful investment advice, even if the manufacturer had proposed a more relaxed approach. On the other hand, the distributor might adopt a less thorough distribution strategy in those situations where the distributor's clients happen to have better knowledge and skills than what the manufacturer assumed.

Also, distributors must match the distribution strategy to the distributor's regulatory authorisation. For instance, if a distributor is not authorised to provide portfolio management services that were assumed and included in the manufacturer's distribution strategy, the strategy must be modified accordingly so that the distributor can remain within the scope of the services that can be legally offered (Hobza et al., 2018).

The Commission Delegated Regulation (EU) 2017/565 outlines additional responsibilities of distributors in Article 10(2-3): " Member States shall require investment firms to have in place adequate product governance arrangements to ensure that products and services they intend to offer or recommend are compatible with the needs, characteristics, and objectives of an identified target market and that the intended distribution strategy is consistent with the identified target market. […] Member States shall ensure that investment firms obtain from manufactures that are subject to Directive 2014/65/EU information to gain the necessary understanding and knowledge of the products they intend to recommend or sell in order to ensure that these products will be distributed in accordance with the needs, characteristics and objectives of the identified target market, Member States shall require investment firms to take all reasonable steps to ensure they also obtain adequate and reliable information from manufacturers not subject to Directive 2014/65/EU to ensure that products will be distributed in accordance with the characteristics, objectives and needs of the target market. Where relevant information is not publicly available, the distributor shall take all reasonable steps to obtain such relevant information from the manufacturer or its agent. […] Investment firms shall use the information obtained from manufacturers and information on their own clients to identify the target market and distribution strategy".

These requirements are aimed at fostering the correct, fair and transparent flow of all relevant information concerning the product from manufacturers to distributors, and from distributors to retail investors. The aim is to completely avoid, or at least limit as much as possible, potential mis-selling, thus ensuring that products are sold to appropriate clients only.

Distributors have additional responsibilities when the financial instruments they want to distribute are manufactured by entities not subject to MiFID II's product governance rules, such as UCITS (Undertakings for Collective Investment in Transferable Securities) managers, AIF (Alternative Investment Fund) managers, and issuers of corporate bonds that fall outside the scope of MiFID II. Nevertheless, the absence of regulatory requirements on the manufacturer does not exempt the distributor from their responsibilities under MiFID II, but rather in such circumstances distributors are expected to perform even better due diligence to ensure that they correctly assess the target market and develop an appropriate distribution strategy.

In these scenarios, distributors can fulfil their duties through several approaches, including a careful consultation of all publicly available information about the financial instrument and, if such information is deemed insufficient, the request of additional information directly from the manufacturer through contractual agreements.

Sector-specific regulations can help with the provision of all necessary information. For instance, UCITS managers must make available Key Investor Information Documents (KIIDs), which contain essential details about the product.

These documents can be useful for distributors to perform their assessments and can complement the analysis they need to perform to ensure that the product is suitable for their clients (Hobza et al., 2018).

Failure to fully adhere to these requirements can lead to severe legal and financial consequences.

Distributors that distribute an instrument to the “wrong” target market or that fail to gather all relevant information about the product they want to distribute may face sanctions from national competent authorities (NCAs), which have the authority to enforce compliance through measures that may include fines, suspension of trading activities, up to a full ban on the sale of non-compliant products (Veil, 2021).

Furthermore, non-compliance can significantly and negatively impact distributors’ reputation and investors’ trust. In fact, investors affected by the mis-sold product may arise legal claims to recover from the financial losses caused by inappropriate investment, thereby exposing distributors to litigation risks. In addition to the direct financial costs, this would also result in long-term damage to the institution's market position and reputation, and on relationships with investors (Ferran, 2012; Veil, 2021).

Ongoing product review and monitoring

Continuous monitoring and review of financial products are mandated by Article 16(3) of MiFID II: " […] An investment firm shall also regularly review financial instruments it offers or markets, taking into account any event that could materially affect the potential risk to the identified target market, to assess at least whether the financial instrument remains consistent with the needs of the identified target market and whether the intended distribution strategy remains appropriate." (Directive 2014/65/EU).

This continuous monitoring process guarantees that financial products remain suitable for the target market at any point in time and adapt to changes in the market or client conditions. Firms are mandated to reassess the product’s appropriateness periodically and make all the necessary adjustments if the instrument no longer serves the best interests of the clients. Adjustments may include modifying the characteristics of the instrument, redefining the target market, or even write the product off (Colaert, 2019; ESMA, 2023).

Record-keeping

Article 16(6-7) of MiFID II specifies the obligations of investment firms regarding record-keeping: " An investment firm shall arrange for records to be kept of all services, activities and transactions undertaken by it which shall be sufficient to enable the competent authority to fulfil its supervisory tasks and to perform the enforcement actions under this Directive, Regulation (EU) No 600/2014, Directive 2014/57/EU and Regulation (EU) No 596/2014, and in particular to ascertain that the investment firm has complied with all obligations including those with respect to clients or potential clients and to the integrity of the market. Records shall include the recording of telephone conversations or electronic communications relating to, at least, transactions concluded when dealing on own account and the provision of client order services that relate to the reception, transmission and execution of client orders. Such telephone conversations and electronic communications shall also include those that are intended to result in transactions concluded when dealing on own account or in the provision of client order services that relate to the reception, transmission and execution of client orders, even if those conversations or communications do not result in the conclusion of such transactions or in the provision of client order services. […] The records kept in accordance with this paragraph shall be provided to the client involved upon request and shall be kept for a period of five years and, where requested by the competent authority, for a period of up to seven years." (Directive 2014/65/EU).

The directive therefore specifies that records to be kept must concern all relevant documents related to the suitability assessments, client communications, and the rationale behind any investment decision made or advice given.

Regulatory oversight and compliance

Regulatory authorities such as ESMA are given a crucial role for the enforcement of MiFID II's product governance rules. According to Article 69(1) of MiFID II: "Competent authorities shall be given all supervisory powers, including investigatory powers and powers to impose remedies, necessary to fulfil their duties under this Directive and under Regulation (EU) No 600/2014." (Directive 2014/65/EU).

The powers granted to competent authorities are listed in paragraph 2 of the same article, as regulatory authorities should at least:" have access to any document or other data in any form which the competent authority considers could be relevant for the performance of its duties and receive or take a copy of it; require or demand the provision of information from any person and if necessary to summon and question a person with a view to obtaining information; carry out on-site inspections or investigations; require existing recordings of telephone conversations or electronic communications or other data traffic records held by an investment firm, a credit institution, or any other entity regulated by this Directive or by Regulation (EU) No 600/2014; require the freezing or the sequestration of assets, or both; require the temporary prohibition of professional activity; require the auditors of authorised investment firms, regulated markets and data reporting services providers to provide information; refer matters for criminal prosecution; allow auditors or experts to carry out verifications or investigations; require or demand the provision of information including all relevant documentation from any person regarding the size and purpose of a position or exposure entered into via a commodity derivative, and any assets or liabilities in the underlying market; require the temporary or permanent cessation of any practice or conduct that the competent authority considers to be contrary to the provisions of Regulation (EU) No 600/2014 and the provisions adopted in the implementation of this Directive and prevent repetition of that practice or conduct; adopt any type of measure to ensure that investment firms, regulated markets and other persons to whom this Directive or Regulation (EU) No 600/2014 applies, continue to comply with legal requirements; require the suspension of trading in a financial instrument; require the removal of a financial instrument from trading, whether on a regulated market or under other trading arrangements; request any person to take steps to reduce the size of the position or exposure; limit the ability of any person from entering into a commodity derivative, including by introducing limits on the size of a position any person can hold at all times in accordance with Article 57 of this Directive; issue public notices; require, in so far as permitted by national law, existing data traffic records held by a telecommunication operator, where there is a reasonable suspicion of an infringement and where such records may be relevant to an investigation into infringements of this Directive or of Regulation (EU) No 600/2014; suspend the marketing or sale of financial instruments or structured deposits where the conditions of Articles 40, 41 or 42 of

Regulation (EU) No 600/2014 are met; suspend the marketing or sale of financial instruments or structured deposits where the investment firm has not developed or applied an effective product approval process or otherwise failed to comply with Article 16(3) of this Directive; require the removal of a natural person from the management board of an investment firm or market operator".

As already discussed, regulatory authorities have the power to prohibit or restrict the distribution of certain financial product and even certain financial practices and activities whenever there is reasonable evidence to believe that such products or activities could pose significant threats to investor protection, market functioning or financial stability. Articles 21 and 22 of the EC Delegated Regulation (EU) 2017/567 provides for a non-exhaustive list of criteria and factors that need to be considered by the competent authorities to determine if the risk of such threats is material. Factors include the complexity of the instrument or financial activity, the materiality and extent of the potential negative externalities, the profile of the investors involved, and the transparency of the product or financial practice.

The prohibition could also be a precautionary measure before the product reaches the intended audience, should the regulatory authority deem it necessary after a careful evaluation of the aforementioned factors.

It is important to point out that any measure adopted by the regulatory bodies should be proportionate to the potential risks, the type and the degree of knowledge and skills of the investors involved, and the effects that the measure may have on the market as a whole.

All in all, the powers granted to competent bodies consist of a set of enforcement measures meant to deter non-compliance and guarantee the integrity of the financial system (Veil, 2021).

Evidence from the past

The importance of the strict and firm provisions the product governance framework relies upon can be further understood in light of the consequences of several historical instances where products were sold without adequate regard for client suitability, leading to significant losses.

These incidents signalled the necessity for more stringent regulations on the identification and adherence to a well-defined target market, on disclosure and transparency, and on distribution practices, contributing to creation of the MiFID II product governance framework that exists nowadays.

This discussion puts the focus on two relevant historical events, namely, the PPI scandal and the Global Financial Crisis.

The PPI scandal

The Payment Protection Insurance (PPI) scandal in the UK is a relevant instance of financial mis-selling, where millions of investors were sold insurance instruments that were often unsuitable or unnecessary. The scandal highlighted systemic failures within the financial services industry, including aggressive sales tactics, lack of transparency, and inadequate regulatory oversight.

Between the mid-1990s and the late 2000s, PPI schemes became an extremely popular instrument offered to retail investors. The declared aim of this product was to cover loan's instalments repayment whenever borrowers couldn't meet their financial obligations due to well-defined reasons, including accident, unemployment and sickness. However, this instrument happened to be widely mis-sold.

According to Ferran (2012), PPI policies were typically proposed to those being ineligible to benefit from them, including the self-employed or those with pre-existing medical conditions, thus being excluded a priori from the coverage in place. Many customers did not even know they were purchasing PPI, given that it was a common practice for financial institutions to bundle these products with loans without asking for explicit consent, thus implicitly making it a mandatory part of the credit agreement. Furthermore, there was no adequate disclosure of PPI policies' terms and conditions, which used to be stated in a complex and lengthy way that made it unlikely for the average investor to understand the nature or the exclusions of the coverage. Also, sales departments had an incentive to sell PPI due to high commissions, leading to widespread use of aggressive sales tactics. These tactics aimed at selling policies to the most vulnerable investors, such as the elderly or those with limited financial literacy, without a proper assessment of the suitability of the investment. The failure of the UK competent authority to properly monitor the situation and address the issue contributed to aggravate the damage suffered by investors: by 2012, it was estimated that investors compensation claims exceeded £9 billion, making it one of the largest redress schemes in UK history (Ferran, 2012).

The aftermath of the PPI scandal led to major regulatory changes designed to enhance the system for identifying target markets and protecting consumers.

The regulatory response included the introduction of stricter rules on product governance, such as those encapsulated in MiFID II. The introduction of provisions for the detailed and correct identification of specific target market for each financial product was meant to assure that products are designed and delivered in a way that is likely to serve that market's best interest, and to address only investors who need and can benefit from the product. Regulators also highlighted the importance of transparency and disclosure. Financial institutions are now required to provide full information about the instruments offered to investors in a way that is clear, fair, and non-misleading, specifying who the product would be suitable for, and the possible risks involved. The reforms also increased accountability among financial institutions, for which strict surveillance and compliance checks have been ensured on adherence to the new rules. Institutions now have to maintain detailed records with regard to their product governance processes in order to identify and monitor target markets and review these processes on a regular basis to allow adjustments to changing market conditions and consumer needs. Competent supervisory authorities were also given greater intervention powers in the market, including the authority to ban instruments that could potentially have harmful consequences on investors (Ferran, 2012).

The Global Financial Crisis

The 2007-2008 financial crisis, otherwise known as the Global Financial Crisis (GFC), is considered by many economists as the most severe financial crisis since the Great Depression. It was characterized by a series of losses in consumer wealth, an ongoing collapse in banking, and high unemployment that marked its beginning in the United States before spreading worldwide.

The crisis was triggered by the explosion of housing bubbles in the United States. In the years preceding the crisis, there was a steep increase in prices of houses based on high demand and speculation. During these years, banks and financial companies extended subprime lending, which involves lending money for mortgages to customers with poor credit histories or ratings, in the belief that the higher value of real estate would secure the loans back. (Mishkin, 2019).

A critical factor that exacerbated the crisis was the widespread use of securitisation.

Mortgages, including risky subprime loans, used to be bundled together into mortgage-backed securities (MBS); a common practice wat to further repackaging MBSs into collateralized debt obligations (CDOs), even more complex financial products. Both MBSs and CDSs were then sold to investors that, due to the several of complexity and opacity of these products, were unaware of the true risks that such an investment would entail (Bodie et al., 2014; Shiller, 2015).

Rating agencies contributed to the mis-selling of these complex products as they awarded high credit ratings to many securities with high default risk. This misrepresentation of risk induced many investors to wrongfully believe that they were making safe investments while hiding the true risks that eventually materialised and determined massive losses for the financial system as a whole. In fact, financial institutions had largely funded their investment in MBS and CDOs through short-term borrowing; when the decline in housing prices led to a fall in the value of these securities, the panic generated led to a liquidity crisis as banks and investors rushed to liquidate their assets, thereby taking credit availability away. (Bernanke, 2013).

The financial crisis highlighted critical failures in the existing financial regulatory frameworks, particularly regarding the management and oversight of complex financial products. Such shortcomings triggered a worldwide reconsideration of financial regulation and huge reforms regarding product governance and market transparency.

To begin with, regulators introduced stricter disclosure provisions to foster the correct flow of complete and detailed information about any financial instrument, including risk characteristics, costs, and underlying assets, to investors, thus helping them make more informed investment decisions (Acharya et al., 2010). The crisis also shed lights on the dangers of selling complex financial products to unaware investors, including institutional investors that trusted the ratings provided by rating agencies. Reforms have since emphasized the need for financial institutions to conduct meticulous evaluations of their clients' knowledge, experience, financial situation, and investment objectives before recommending any investment. This helps ensuring that the products offered are suitable for the investors' needs and degree of risk aversion (Bernanke, 2013). Post-crisis reforms stressed the need for financial institutions to have in place clear target market identification processes and to periodically monitor and review products as market conditions change (Acharya et al., 2010).

Finally, the GFC made it necessary to promote stronger regulatory oversight and accountability in the financial sector. Reforms empowered regulatory authorities like the Financial Conduct Authority (FCA) in the UK and the European Securities and Markets Authority (ESMA) to enforce compliance with product governance rules more effectively, granting them the power to conduct internal controls, issue fines, and take other enforcement actions against non-compliant institutions (Bernanke, 2013).

Regulatory compliance and RegTech

As already mentioned, firms are required to comply with the regulatory standards established in the MiFID II by setting up robust product governance frameworks to guarantee full alignment with all the provisions.

Firms may benefit from leveraging the new advancements in Regulatory Technology, or RegTech, in MiFID II implementation. As a matter of fact, it is believed that new technologies such as artificial intelligence and machine learning technologies may strengthen compliance, reduce human error, automate manual tasks, and enhance processes effectiveness and efficiency (Regan et al., 2022).

RegTech can be defined as a subset of Financial Technology (FinTech) where the use of advanced technologies such as artificial intelligence, machine learning, blockchain, and big data analytics, is aimed at improving and enhancing regulatory processes, ensuring higher transparency and more efficient and effective regulatory compliance (IIF, 2016; Olawale et al., 2024). RegTech has evolved significantly in the past years, mainly because of the need for financial institutions to deal with the increasingly complex regulatory landscape post-GFC (Olawale et al., 2024).

RegTech relies upon three main innovative technological tools: Artificial Intelligence and Machine Learning, that automate the large datasets analysis, improving the precision and speed of compliance-related activities; Blockchain technology, that guarantees a safe, transparent and immutable ledger for recording transactions; Cloud Computing, that offers important solutions for data storage and processing (Olawale et al., 2024).

One of the main benefits of RegTech is the automation and optimisation of the compliance and monitoring processes that were traditionally manual, labour-intensive, and time-consuming. Automation minimises human error, enhances precision, and allows institutions to adapt promptly to regulatory changes. In fact, automated systems can monitor and report on compliance metrics on a continuous basis to ensure compliance with the strict requirements laid down by MiFID II. This real-time tracking capability, together with predictive analytics, improve risk management by fostering prompt detection and correction of compliance gaps, thus increasing the likelihood of avoiding regulatory fines and improving overall operational efficiency. Also, implementing technological tools improves the reporting process, simplifying the provision of detailed and precise information from institutions to regulators and clients (Olawale et al., 2024).

The support of advanced technological tools, particularly data analytics, allows financial institutions to collect, store, and analyse huge amounts of client data more efficiently. This is crucial for the correct identification and definition of target markets and for ensuring that products are suitable for the intended audience. These analytics can improve the full understanding of complex client profiles, including risk aversion, financial background, and investment objectives (IIF, 2016; Olawale et al., 2024).

Technologies based on blockchain, and other ledger technologies, could also help guarantee that transaction records are transparent and immutable to a larger extent, supporting regulatory expectations of transparency and integrity in data (Olawale et al., 2024).

RegTech is likely to improve the efficiency and effectiveness of stress tests and enhance the processes to manage internal and external risks. These two areas require in fact huge amounts of human (manual and intellectual) and computational capacity, given the broad range of variables, scenarios, and risky occurrences that are required to perform scenario and sensitivity modelling and analysis as well as forecasting. These processes may benefit from the powerful technologies which RegTech relies upon, thereby making stress testing and risk management easier to implement and more accurate (IFF, 2016).

All benefits discussed so far also help reducing costs. Despite the high initial cost of technology, automation and better data management do lead to cost savings in the long run, as they significantly contribute to largely reduce the need for (time-consuming) manual processes and minimise the risk to incur in regulatory penalties. Efficiencies generated allow institutions to reallocate resources properly and adapt to any changes in regulatory requirements. (Olawale et al., 2024).

Challenges in implementation

Regulatory compliance is potentially challenging as there are several factors to be considered.

First, regulatory compliance entails a high level of complexity and costs, making it difficult for financial institutions to cope with it. Firms are expected to revamp their current systems and processes to align with the new regulations by developing robust governance frameworks, training staff, and bringing in technological upgrades. Compliance may be financially burdensome because it may also require firms to employ additional compliance personnel and invest in advanced data management systems. Effective data management is at the core of identifying target markets and complying with MiFID II. However, processing significant volumes of sensitive client information may be problematic, mainly because of issues related to data privacy and security as firms must be able to ensure the integrity, availability and protection of this data. The further burden arises from the compulsory compliance with complex global data protection regulations, such as the General Data Protection Regulation (GDPR), which specify that financial institutions must have in place thorough measures for data protection and demands full transparency over data usage and storage (Olawale et al., 2024).

The adaptation to most of the requirements under MiFID II usually comes along with a deep-seated cultural transformation within financial institutions. In fact, historically speaking, firms did focus extensively on sales and growth, adopting a reactive rather than proactive approach to regulatory compliance. The increased complexity and strictness of regulatory demand has led many firms to switch to a more proactive approach (Spivack, 2020; Regan et al., 2022). This huge cultural change requires educating and aligning all staff members with new regulatory expectations. Resistance to change may represent a big hurdle, particularly in entrenched organisational cultures.

Finally, new technologies have the potential to rapidly changing the regulatory landscape thus making it complex and subject to constant evolution, contributing to create a landscape of uncertainty for financial institutions. Institutions are expected to keep themselves abreast of ongoing regulatory changes and ensure that the compliance strategies implemented remain aligned with the latest guidance and interpretations by regulators, such as ESMA and national supervisory authorities. This requires constant surveillance and flexibility in developing and executing compliance mechanisms (Arner et al., 2016).

CHAPTER II

RETAIL INVESTMENT STRATEGIES AND PRODUCT GOVERNANCE

Retail investment strategies

According to Bodie et al. (2014), retail investment strategies can be defined as the set of approaches and plans that investors (typically individual investors) adopt to manage their portfolios by allocating their investment capital across a variety of financial products. These strategies can be broadly categorised into passive and active, each with distinct characteristics and methodologies. Preferring one of the two approaches depends on investors' personal characteristics such as financial goals, risk tolerance and time horizon, but also market conditions.

Passive strategies

Passive investment strategies are a cornerstone of modern portfolio management. They are common especially among retail investors as they are simple and relatively cheap to implement. In fact, they require minimal trading activity as they consist of holding a well-diversified portfolio that aims at mirroring the performance of the market, with the primary goal of getting returns comparable to the market average with little to no need for active portfolio management. Exchange-traded funds (ETFs) and index mutual funds are the two main vehicles to implement a passive strategy (Sushko et al., 2018).

Passive strategies rely on the "buy and hold" approach, which consists of buying a portfolio and holding it up to the end of the (typically long) investment horizon, with no need of portfolio rebalancing in case of major changes in the market conditions during the horizon, such as changes in market volatility.

In addition to the already mentioned features of simplicity and cost-effectiveness, passive strategies relevance is also supported by historical evidence and considerations about financial markets.

To begin with, markets are likely to generate positive returns in the long run (Bessembinder, 2018). This claim is backed by historical data showing that major financial markets tend to rise over extended periods, as a long horizon makes it possible to mitigate the effects of short-term fluctuations in asset prices (volatility is also reduced because of the high degree of portfolio diversification that a buy and hold strategy typically entails). This long-term growth might be explained by several factors, such as economic expansion, innovation and technological advancements, productivity improvements, and population growth, which together contribute to the expansion of companies' revenues and profits (Levine, 2005). This expansion translates into a higher company value, increasing the price of the shares traded and of the market as a whole.

The long-term perspective also helps investors avoid common dangerous mistakes, such as panic-selling during market downturns or trading frequently to try and achieve short-term gains, which may lower overall returns. Furthermore, passive strategies often provide consistent returns over an extended period of time, matching market performance without carrying a major risk of underperformance (Sushko et al., 2018).

Market efficiency plays a crucial role in explaining long-term positive returns. In fact, according to the Efficient Market Hypothesis (EMH), financial markets tend to be efficient, that is, asset prices generally reflect all available information. Over time, prices adjust to new information entering the market, thus leading to an overall upward trend in well-functioning markets (Fama, 1970).

Finally, passive strategies reduce the risks of human error, that is, poor stock picking or market timing by fund managers. They minimise the potential pitfalls of active investments based on forecasts that may not materialise.

Because of how they are structured, one of the main disadvantages of passive strategies is the reduced potential for outperforming the index tracked thus obtaining superior returns. Also, as passive strategies are designed to closely track a given index, they cannot adjust to respond to changing market conditions or emerging trends. This lack of flexibility fully exposes the strategy to market risk, which can be disadvantageous during market lows or periods of sector-specific high volatility (Sushko et al., 2018).

Active strategies

Active investment strategies aim to outperform a benchmark, typically a market index, by making use of various investment opportunities and sophisticated analytical techniques. In fact, it is possible to think of active management as placing bets against a benchmark, looking for a compensation for the active risk that such bets entail. In other words, each asset included in the benchmark can be held at either the benchmark weight, which indicates no active risk, or at a weight that is higher or lower, which indicates some active risk. Active risk can also be determined by the inclusion in the active portfolio of assets that are not contained in the benchmark. Active strategies' main goal is to beat the benchmark by making predictions aimed at exploiting changes in the market, specific stocks, or industry trends. These predictions make the active portfolio departing from the benchmark or market index in an effort to produce excess returns, also known as “alpha” or “Jensen's alpha”, a risk-adjusted indicator of portfolio performance that quantifies the contribution of a manager's predicting skills to the returns of the portfolio (Jensen, 1968; Bolognesi, 2023).

These strategies are less popular than passive ones among retail investors as they require a higher level of financial skills and knowledge, a deeper understanding of market dynamics, stock picking and market timing skills. The peculiar characteristics of active strategies make their advantages and disadvantages differ from the ones associated with passive approaches. The investment horizon is relatively short as these strategies aim at capturing short-lived market trends or anomalies to generate high returns. Active portfolios consist of both long and short positions to take advantage of overvalued and undervalued assets at the same time. Active strategies have the potential to generate higher returns than passive ones. A successful active strategy can in fact deliver a superior performance whenever market inefficiencies, such as securities mispricing, are identified and correctly exploited. Such performance can potentially be higher than market performance, so that active strategies can in principle beat the market itself. Furthermore, since active strategies require continuous portfolio rebalancing, they guarantee high flexibility to promptly respond to significant variations in market conditions. Active strategies also allow investors to create portfolios more tailored on their preferences, risk tolerance and ethical considerations, thus aligning the portfolio more closely with the investor's financial goals and values (Bolognesi, 2023).

The implementation of an active strategy entails higher costs than a passive one. Portfolio rebalancing which active strategies rely upon implies high transaction costs, because assets are both and sold at a high frequency. Also, as retail investors normally face constraints to engage in short selling activities, they typically need to purchase an active fund that does it for them; this implies high management and performance fees to be paid to fund managers. This high-cost structure also makes it hard for active funds to beat their benchmark, as historical data showcase a tendency to underperform when accounting for costs and fees. Additionally, if the Efficient Market Hypothesis (EMH) holds, stock prices incorporate all available information, making it hard to consistently achieve above-average returns through stock picking or market timing. As a matter of fact, active portfolios tend to be outperformed by the market index they aim to beat in the long run (Jensen, 1968; Fama, 1970; Bolognesi, 2023). Finally, short positions (a key component of active portfolios) significantly increase the risk of active strategies, making them less appealing for risk averse investors.

Impact on financial markets

The variety of strategies that allows retail investors to access financial markets as key participants is of paramount importance for the integrity and the stability of the markets themselves.

In fact, there are several functions played by retail investors and their investment strategies to guarantee the proper and smooth functioning of the markets, thus making them worth of significant attention and protection (Veil, 2021).

Liquidity provision

Retail investors' trading activities have a significant impact on market liquidity, especially on trading volumes and market stability.

With their individual transactions, retail investors collectively constitute a significant portion of trading volumes. Retail investors participate in daily trading activities by buying and selling stocks, bonds, mutual funds, ETFs, and other financial instruments. This contributes to guarantee a stable volume of transactions, which is crucial for maintaining market fluidity. A high stream of daily trades makes the market more liquid as securities can be bought or sold quickly and ensures that prices reflect all updated market information and investor sentiment (Bodie et al., 2014).

By providing multiple small orders, retail investors participation contributes to increase market depth, which can be defined as the market's ability to sustain and smoothly absorb large orders without significant price fluctuations (Veil, 2021). A deep market has many buy and sell orders at various price levels, guaranteeing that there is always a buyer or a seller available. This helps reducing the bid-ask spread, which translates into lower transaction costs and enhanced market efficiency (Mishkin, 2019).

The function that retail investors have on guaranteeing stable trading volumes contributes significantly to overall market stability.

In a market where the number of active participants is substantial, institutional investors and other large market participants are allowed to execute big trades without causing significant swings in asset prices. In fact, institutional investors are usually involved in large trades that have the potential to significantly impact prices if the market is not liquid enough. By adding to the total trade volume, retail investors help create an environment where these large orders can be executed more smoothly. This is crucial for the operational efficiency of institutional investors who rely on the ability to enter and exit positions without drastically affecting market prices. Therefore, retail investors' activities help the market to handle and absorb large trades more efficiently without experiencing extreme volatility. Also, during periods of market stress or volatility, retail investors participation can help ensuring price stability and preventing panic selling (Levine, 2005; Hüfner and Strych, 2022).

Liquidity is also a key determinant of investor confidence. A liquid market attracts investors as they feel assured that they can enter and exit positions without facing significant impediments or costs. Confidence encourages more market participation, leading to a virtuous cycle where increased participation further enhances liquidity. By consistently participating in the market, retail investors help sustain confidence and attract more participants (Mishkin, 2019; Veil, 2021).

Capital provision

All firms need capital to finance their investments. One way to raise capital is to go on financial markets and selling financial instruments for money. Retail investors play a crucial role in this process by funnelling their savings into capital markets. If markets are efficient, funds will be channelled towards the most productive projects, contributing significantly to economic growth and development (Levine, 2005).

Retail investors can make direct investments in companies by buying the shares or bonds that firms sell on financial markets. This activity is extremely important for many firms, but it is paramount for smaller ones. In fact, SMEs often have limited access to institutional capital and face therefore more significant challenges in securing funding (compared to larger corporations) due to lower credit ratings and perceived higher business risks (Bodie et al., 2014). While potentially riskier, SMEs typically include innovative companies and startups, which may have significant impacts on technological advancement and, ultimately, on growth. In fact, innovation is a key driver of economic growth. By providing capital to innovative companies, retail investors contribute to the development of new industries and the enhancement of existing ones. This process allows to create jobs, generate income and enhance productivity of the economy on a global scale (Levine, 2005).

Enhancement of market efficiency

Market efficiency is the state in which all available information is fully reflected in asset prices. Retail investors contribute to make markets efficient with the very heterogeneity of their strategies and the collective decision-making process.

The first way in which retail investors foster market efficiency is by ensuring the correct functioning of price discovery mechanism, that is, that process that eliminates price discrepancies and guarantees that an asset price reflects the true value of that asset (Veil, 2021).

Retail investors participate in the market by trading securities in opposite directions based on their individual views and assessments, which are influenced by factors that include company performance, economic indicators, news events, and personal investment strategies. The variety of strategies adopted by retail investors may be focused on the analysis of a company's financial statements, management composition, competitive position, and industry conditions to estimate its intrinsic value (fundamental analysis), on predictions of future price movements based on historical price and volume data (technical analysis), or on the evaluation of market sentiment based on sources such as news or social media (sentiment analysis). By adopting this wide range of diverse investment strategies, retail investors foster the continuous adjustment of security prices, ensuring that they incorporate all the latest available data and reflect the real company value (Bodie et al., 2014).

The continuous price adjustment is guaranteed by the fact that retail investors react as new relevant information (such as earnings reports, economic data, or geopolitical events) come to the market by modifying their investment positions. This dynamic and immediate reaction to information flows helps the market to quickly integrate new information into asset prices, ensuring that they are always current and reliable.

Another crucial way for enhancing market efficiency is the reduction of asymmetric information. Information asymmetry materialises whenever one or more market participants have more or better information than other parties. A reduction in information asymmetries permits to all participants to make investment decisions based on the same set of information, thus leading to a fairer and more precise asset pricing (Akerlof, 1970). The activity or retail investors on financial markets may provide significant help in reducing market asymmetries. The majority of inexperienced investors invests driven by sentiment, trading assets that are particularly popular in the headlines or on the easy-to-access internet and online forums and platforms, which are subject to exceptionally high trading activity or that experience large price swings (Barber & Odean, 2008). While the democratisation of information has brought in many benefits, including the possibility to access all available information easily, freely and at any time, the process may also have severely negative impacts on investors and markets as a whole. Increased overconfidence among investors and the delusion of knowledge are likely outcomes of increased amount and variety of information. Individuals get persuaded by arguments they already agree with, discounting competing viewpoints and always seeking proof to support their positions. The overwhelming availability of information may make investors believe that it would be easy to identify the most profitable stocks and invest in them to obtain short-term abnormal returns. Nevertheless, academic literature shows that overconfident investors are likely to hold portfolios where risk is not correctly diversified, trade in an aggressive and speculative way, experience inferior expected utilities and increase the overall market volatility (Barber & Odean, 2007). These findings may serve as a proof for the fact that reinforcing retail investors' protection is paramount for market integrity. In fact, investors trading out of incomplete, wrong but at the same time popular information may incur in huge financial losses that could imply a loss of confidence and an exit from financial markets, causing at the same time markets to experience higher volatility and lower liquidity. Aware of this, regulators may be induced to look at the correct provision of information more closely, thereby ultimately reducing the risk of information asymmetries.

Additionally, retail investors can help mitigating market anomalies. Market anomalies, such as crashes or bubbles, can materialise when asset prices deviate profoundly from their intrinsic values. The great variety of strategies pursued by retail investors help mitigate these anomalies by counterbalancing herd behaviour. For example, while some investors might look for rising prices during a bubble, others might sell based on their personal opinions and valuations, thereby exerting downward pressure on inflated prices and helping restore equilibrium (Bodie et al., 2014).

Systemic risk mitigation

Systemic risk refers to the risk that gets transmitted from a single entity to the other involving the whole market, which has the potential trigger major instabilities or collapse in the entire financial system.

The broad variety of retail investment strategies helps differentiate risk across several market sectors as it guarantees that the market is not overly reliant on a single investment approach, thereby mitigating the risk of systemic shocks to occur.

Retail investors adopt a wide range of different strategies, depending on their individual characteristics. For example, some may prefer growth investing thereby targeting companies that promise capital appreciation; others may prioritise income investing and select securities that pay high and steady streams of dividends; there may also be the preference, especially in most recent times, for socially responsible investing where investments are selected according to ESG criteria. However, investors' preferences determine not only a diversification within equity markets, but also a sectoral and asset classes diversification. Retail investors may choose across multiple industrial sectors to be invested in, and they may do so by investing in stocks, bonds, real estate, commodities, mutual funds, and many other instruments. The spreading of retail investments across several sectors and asset classes makes retail investors determinant for reducing the impact of negative events in any single market segment. This broad-based diversification helps prevent sector-specific downturns that may have a dramatic impact on the whole financial system (Bodie et al., 2014).

Retail investors have also the potential to provide a significant buffer against market volatility. A buffer against market volatility consists of a set of mechanisms or conditions that help stabilise financial markets during periods of severe price volatility or economic uncertainty. Retail investors contribute to this buffering effect not only through the huge variety of investment strategies pursued, but also because of the different investment horizons and varied degrees risk aversion.

Retail investors' investment horizons range from short to long term, and this spectrum of investment timelines helps absorb market shocks and reduce volatility. On one hand, short-term traders might contribute to volatility as they are more likely to promptly react to market turbulence by buying and selling securities, but their frequent trading activity also provides liquidity, thereby making it easier for other investors to open and close positions without causing large price swings. On the other hand, long-term traders, consistently with the buy-and-hold strategy, are less likely to react to daily market fluctuations and to sell off their positions. This firm holding of assets counterbalances the actions of short-term traders, helping to restore market volatility to normal levels over time (Mishkin, 2019).

Retail investors also differ in their risk tolerance. Conservative, risk-averse investors may prefer low-risk assets such as government bonds or insurance stocks, while more aggressive investors might pursue high-risk, high-reward opportunities. This range of risk appetites contributes to spread risk throughout the market, thereby reducing the overall market volatility. In fact, during turbulent times, high-risk assets may face a downturn while conservative and insurance investments' payoff is likely to increase, thereby counterbalancing the downward spiral and cushioning the overall market (Cochrane, 2005; Bodie et al., 2014).

Case study: the COVID-19 pandemic

The COVID-19 disease originated in the city of Wuhan, China, during November 2019, and rapidly spread and affected the whole world (the World Health Organization identified COVID-19 as a global pandemic at the beginning of March 2020). The pandemic became a global emergency that had on the world economy a more severe impact than any previously experienced crisis (Baker et al., 2020; Khan et al., 2024).

The outbreak of the virus caused huge and rapid price swings in the stock markets across the world. For example, the three most relevant U.S. stock market indices (namely, the S&P500, Nasdaq and Dow Jones) experienced a sharp value reduction of 31.9, 30.1 and 37.1% respectively. Also, in March 2020, all G7 countries' stock markets (excluding Japan) declined by between 12.0 and 19.0% within one single day, hitting a 20-year low. The increase in volatility during the COVID-19 shock was not distant to the volatility shocks of the Great Depression of 1929 and the Black Monday Crash of 1987, and even higher than those of the Great Depression of 1933 and the GFC of 2008-2009. (Baker et al., 2020; Khan et al., 2024).

The participation of retail investors in financial markets during the pandemic helped providing a significant buffer to market volatility. In fact, retailers' participation recorded a significant increase in that period, mainly because of two reasons.

First, the vast majority of countries declared national lockdowns to limit the spread of the virus. These "stay at home" policies had the effect, among others, to force many individual investors to turn their focus to financial markets to occupy their days.

The second reason is inherently connected to the first one. In fact, retail investors found it particularly easy to access financial markets thanks to the advancements in FinTech that led to the creation of low commissions and trading costs platforms such as Robinhood, one of the most popular trading platforms during the pandemic (Pagano et al., 2021; Ozik et al., 2021).

Retail investors contributed to overall market stability especially by providing liquidity. In fact, direct and free market access and an abundance of free time made retail investors a crucial factor that contributed to counterbalance the overall market illiquidity caused by the pandemic. Their frequent trading activity both on the buy and the sell sides ensured that markets did not collapse during the high volatility period. The liquidity provided by retailers helped absorb large institutional trades, thereby mitigating the drastic swings in asset prices and contributing to overall market stability. At the same time, the different strategies and investment horizons of retail investors helped spread risk across the market. In fact, with institutional investors typically following similar strategies and opening or closing positions simultaneously, the variety approaches pursued by retail investors counterbalanced institutional herd behaviour, thus reducing the potential for extreme market movements. In particular, many retail investors adopted contrarian strategies. These strategies consist of "betting on the recent losers" (Bodie et al., 2014), that is, buying stocks when prices are low and market tendency is to sell. For example, many investors took advantage of the initial market sell-off occurred in March 2020 to purchase stocks at lower prices, thereby supporting the market and providing significant aid in the subsequent recovery (Pagano et al., 2021; Ozik et al., 2021).

All in all, retail investors trading activity proved to be a significant buffer against market volatility, as it mitigated the rise in illiquidity by roughly 40% (Ozik et al., 2021), distributed the risk and counterbalanced herd behaviour, thereby contributing to sustain market stability in a period of significant uncertainty.

Regulatory aspects for retail investors protection

The previous section showed how the trading activity of retail investors in financial markets is pivotal for the correct functioning of the market itself, contributing to stability and growth. For this reason, regulators are always looking for improvements to the legislative framework in order to guarantee and enhance investors protection, to support market integrity and transparency, and to increase and foster individuals' participation in financial markets.

The EU Retail Investment Strategy

The European Union is currently pursuing the so-called Retail Investment Strategy (hereinafter, RIS), defined as a measure to boost retail investors' participation in financial markets (Annunziata, 2023). The EU's RIS is an important component of the broader Capital Markets Union (CMU) framework, aiming to create a single unified capital market across the EU. This strategy is consistent with the need for harmonizing investment rules and improving market access for retail investors. The primary motivations behind the strategy include enhancing investor protection, increasing transparency, and fostering trust in financial markets. The strategy aims at empowering retail investors fostering an alignment of their decisions with their financial goals and degrees of risk tolerance, by simplifying regulatory requirements and improving product governance.

Annunziata (2023) stresses the necessity of the EU RIS as a tool to address several key issues that affect European financial markets.

Low EU retail investors participation into financial markets

To begin with, EU households hold only a relatively small portion of their wealth in financial instruments, compared to other economies. In fact, as of 2021, roughly 17% of EU27 (an aggregate of the 27 EU member states) households' assets were held in financial instruments, while US households held approximately 43% of their wealth in the form of financial securities (European Commission, 2023).

Furthermore, EU retail investors participation in financial markets is relatively low. In fact, it is estimated that in certain EU countries retail investors holding positions in the market only constitute approximately 28% of the whole population (Annunziata, 2023). There are several factors that may serve the purpose of explaining this low participation.

First, financial products are often perceived as opaque and complex, thereby making it difficult for retail investors to make truly informed decisions. This fact comes along with another issue, that is, the previous instances of conflicts of interests and mis-selling practices that eroded investors' trust in financial intermediaries and capital markets. A Eurobarometer survey showed that only 38% of consumers trust that financial intermediaries' investment advice is in their best interest (European Commission, 2023).

Additionally, Annunziata addresses the issue of low financial literacy. In fact, many EU citizens lack sufficient financial knowledge and skills to make informed investment decisions. This factor contributes at increasing mistrust in financial intermediaries and misunderstanding of financial products, but also at switching investors' preference from financial markets to safer, lower-yielding savings options such as bank deposits, thereby reducing participation in capital markets.

Improving the disclosure regime

The EU RIS (Annunziata, 2023) is based on several proposals aimed at improving market functioning and investor protection.

First, it requires an enhancement of the current disclosure regime. In fact, disclosure is essential to guarantee that financial markets operate efficiently and transparently.

Effective disclosure practices allow investors to make informed decisions by providing essential information about financial products, and help maintaining investor trust and ensuring market integrity. Therefore, it is paramount to have in place a system that guarantees the provision of clear, relevant, and comparable information to retail investors that otherwise are unlikely to properly assess the risks and costs associated with different investment products.

The current disclosure regime presents some relevant issues. First, disclosure documents are often complex and not straightforward to understand, given that they are written using specific and technical language and lengthy descriptions that make it difficult for the average retail investor to fully understand the content of the document and make an effective use of the disclosed information. Another issue lies in the inconsistency in disclosure formats. In fact, the lack of standardization in disclosure formats, each coming with its own presentation style and information structure, makes it challenging for investors to successfully make comparisons between different financial products and providers. Finally, the current disclosure regime leaves room for a counterproductive overload of information. While providing detailed information is useful and necessary, the production of an overwhelming amount of data may make it hard for investors to highlight the most relevant points among tons of less relevant information.

Annunziata (2023) identifies potential improvements that the EU RIS could bring to the current disclosure regime.

First, standardisation and simplification of the format and the content of information disclosed is of paramount importance. The Key Information Document (KID) under the PRIIPs Regulation is a relevant example of effective format standardization. The KID is in fact designed to provide a detailed summary of crucial product information, including risks, costs, and potential returns, in a manner that is clear, concise, and understandable by the average retail investor (Veil, 2021).

Another useful tool to manage information overload may be the layered disclosure approach where the top layer provides key information while the other layers contain additional, more detailed data that remain available for those investors that are willing to analyse them. This approach aims at facilitating access to the information needed by all investors, regardless of their financial knowledge or skills. Digital disclosure tools could be another element to improve the current disclosure regime. Digital platforms may be employed to create interactive and personalized disclosure documents that can communicate information more clearly based on the investor’s individual characteristics, thereby making data more relevant and accessible and enhancing the understanding of complex information. Furthermore, digital tools could be used to update disclosure documents in real time, thus guaranteeing that investors can always consult the most current information. This is crucial especially for instruments characterised by highly fluctuating risks and returns (Annunziata, 2023).

Finally, Annunziata (2023) promotes a reform of existing regulations that should be updated to better mirror technological advancements and changing consumer behaviours and promote the integration of disclosure practices with digital financial platforms by ensuring that digital disclosures meet regulatory standards for clarity, accuracy, and comprehensiveness. The implementation of these disclosure measures would require a synergy of several elements. Regulators need to have in place strict oversight measures, which may include regular audits and inspections to ensure that financial institutions adhere to the transparency and investor protection standards, in order to enforce full compliance with disclosure requirements. Furthermore, collaboration between regulators, financial institutions, and consumer protection organizations is crucial for the development of effective disclosure policies. The combination of continuous review of disclosure practices and stakeholder feedback may in fact be useful to better identify gaps in current practices and design improvements aimed at aligning future practices with investor needs. Finally, financial institutions should educate and train their staff on the importance of effective disclosure, ensuring that the regulatory requirements and best practices for communicating information to investors are fully understood.

Financial literacy and education in the EU

In addition to the improvements to the current disclosure regime, the EU RIS (Annunziata, 2023) also promotes initiatives aimed at enhancing financial literacy.

Financial education should be better tailored to align with the different needs of each individual, thus empowering them to understand the benefits and risks associated with each investment and the financial advice they may receive. The aim should not be to make people become financial experts, but rather that they acquire sufficient knowledge, skills and information to make informed decisions to meet their financial needs. This will contribute to build trust and confidence, thereby bringing individuals closer to capital markets and fostering retail investor participation.

Within this context, the EU RIS expects Member States to implement measures supporting the education of both retail investors and potential retail investors about financial matters (European Commission, 2023). These measures should target the broadest possible audience, from students at the earliest stages of their educational careers to adults.

Kaiser and Lusardi (2024) examined the impacts of certain specific financial education programmes on students and adults. They found out that financial education programmes in schools may have positive short- and long-term effects. The immediate effects regard significant improvements in the students' financial knowledge and short-term benefits in their savings behaviour, financial autonomy, and capital management. These benefits tend to be persistent in the long term and tend to come along with positive spillover effects on the students' surrounding environment, such as on teachers and parents, suggesting a positive impact on a broader portion of society. On the other hand, traditional classroom-based approaches showed little to no impact on adults, for which innovative strategies proved to be more effective. In fact, measures such as targeted interventions, mass media campaigns, digital and gamified content, active learning methodologies and decentralized teaching produced better and more substantial results.

Financial literacy will be dedicated an in-depth analysis at the end of this chapter.

Digitalisation and its role in the financial environment

As it has been touched upon before, digitalisation could be an important tool to improve individuals' financial education and boost their participation in financial markets. In fact, digitalisation has the potential to transform financial markets.

Digital tools can significantly reduce transaction times and costs. The automation of repetitive manual activities, like account administration and transaction processing, provided by digital AI tools enables financial organizations to optimise resources, reduce operating expenses, and eliminate human error. Also, by processing data quickly and spotting trends that human analysts might miss, AI enhances risk assessments and investment strategies. At the same time, AI tools are extremely useful in other key areas of the financial sector. Massive volumes of transaction data are scanned in real time by AI algorithms to find irregularities and prevent potential financial crimes and frauds. By spotting unusual transaction patterns, AI strengthens security and helps avert data breaches and unwanted access. Also, by evaluating market patterns and producing automated investing plans, artificial intelligence improves portfolio management. Digital systems can in fact process complicated data quickly, thereby enhancing overall investment decision-making. Also, machine-learning algorithms can assess a variety of aspects outside of the criteria used in traditional credit scoring, which improves the accuracy and comprehensiveness of credit risk assessment. (Ridzuan et al., 2024).

Additionally, digitalisation empowers investors by providing them with direct access to financial markets and investment tools and offering a variety of information and analytical tools that help investors make more informed decisions. Artificial intelligence-powered chatbots and virtual assistants improve client engagement by offering assistance at all hours, responding to questions, and handling transactions fast and effectively. This reduces the perceived distance between investors and the financial sector, thereby making the latter more appealing for investors. In fact, the immediateness and easy accessibility provided by digital tools may attract an increasing number of investors into financial markets. Finally, digitalised contents were previously described as a useful tool to improve individuals' financial education, thereby contributing to make financial markets more appealing and boosting participation (Annunziata, 2023; Ridzuan et al., 2024).

While Annunziata (2023) acknowledges the advantages of digitalisation, he also highlights the risks that should be evaluated. The digital environment is vulnerable to potential operational disruptions and cybersecurity threats that may compromise the integrity and reliability of financial services. The incorporation of game-like elements in investment platforms, known as gamification, may encourage investors to engage in excessively risk-taking behaviours that are not in line with their long-term financial objectives. Finally, it is relevant to mention the digital exclusion. In fact, while it is true that digitalisation increases accessibility for many, it can also exclude those who lack digital literacy or access to technology. This barrier created by digitalisation could hinder financial inclusion and market participation.

For these reasons, the EU RIS should promote digitalisation in a context that addresses the aforementioned risks (Annunziata, 2023).

First, it is proposed to introduce digital suitability tests aimed at assessing investors' understanding of digital tools and financial products before granting them access to digital services and gamified platforms, in order to ensure that investors possess the necessary knowledge and skills to make informed decisions. It is also advised to reform the current definition of "investment advice" under MiFID II, deemed inadequate to hold for digital platforms. It is suggested to broaden this definition to encompass digital investment services and to appropriately regulate all forms of advice, including automated and algorithm-driven recommendations. The strengthening of cybersecurity protocols is crucial to safeguard digital financial services. This includes the need to have in place robust security frameworks, regular audits, and continuous monitoring to protect against cyber threats and operational failures. Furthermore, digitalisation could be a trigger for a virtuous cycle: digital tools may be used as a way to improve individuals' financial and digital literacy, and the increase in people understanding of the financial and digital world may help mitigate the risks of digital exclusion and reduce the perceived distance between individuals and financial markets. Clearly, regulatory authorities should oversee the digitalised environment to ensure that digital financial services comply with existing regulations and should adopt regulatory frameworks tailored to digital platforms. They should be granted sufficient powers to monitor the practices of digital service providers and enforce compliance with the standards for transparency, fairness, and security (Annunziata, 2023).

Improving product governance through product mapping

Another important component of the EU RIS is the proposal for an improvement of product governance by enhancing the concept of product mapping (Annunziata, 2023).

As it was broadly discussed in chapter I, product governance is a regulatory framework which mandates that financial institutions design, market, and distribute financial products that are aligned with the needs of their target market, with the aim to ensure that products are created and sold in the best interest of the end investors.

Product mapping is an essential component of product governance, given that effective investor protection can only be achieved when not only investors, but also financial instruments are profiled using rational and precise criteria. Product mapping involves the rigorous categorisation and classification of financial products to align them with the appropriate target markets. By mapping products accurately, financial institutions are more likely to meet the regulatory standards of product governance, thereby protecting investors and enhancing the transparency and suitability of financial instruments.

While the current legislative focus in the EU has predominantly been on client profiling, product classification has received comparatively less attention, thus leaving product mapping almost exclusively to financial intermediaries' due diligence and discretion. The lack of uniformity in product mapping standards may lead to inconsistencies in how products are categorised and offered to retail investors, and this could be detrimental for investors protection. In fact, depending on the varied criteria and methodologies used by different intermediaries for product mapping, the range of suitable products for a given client segment may be inconsistent. One method could identify more suitable products than another one, thus leaving significant degrees of uncertainty around the correct approach to be adopted.

Annunziata (2023) highlights the need to adopt better provisions aimed at better regulating product mapping. Investment firms and insurance intermediaries should be mandated to display appropriate risk warnings for particularly risky financial products. European regulatory authorities such as ESMA and EIOPA should develop additional guidelines to improve the legislative framework that deals with risky products; also, these guidelines should expand product mapping standards to all financial products, including the less risky ones. The use of standardised data sets and product profiling information would also be beneficial. These standardised metrics, potentially shared through platforms like the European Single Access Point (ESAP), would facilitate and improve comparison of profiling parameters and enhance the internal controls of investment firms and supervisory authorities. This approach could also help in early detection and prevention of mis-selling. The introduction of benchmarks to ensure that financial products deliver value for money to retail investors would be another important element. Manufacturers and distributors should be required to set out a transparent pricing process and compare costs against established benchmarks. This should be the starting point to further promote standard product mapping practices for all relevant aspects of financial products, not only costs and fees.

Conflicts of interest and inducements

Finally, another important objective of the EU RIS (Annunziata, 2023) is the mitigation of the conflicts of interest in the financial industry, with particular attention on inducements.

Inducements are benefits, either monetary or otherwise, provided to financial intermediaries by third parties. They have the potential to influence the conduct of intermediaries, thereby leading to conflicts of interest and affecting the quality of services provided to clients (Annunziata, 2023). The need to regulate inducements became prominent in 2004 with the MiFID I Directive. Inducements rules where then further expanded and reinforced with MiFID II, and are currently regulated by article 24(9) of the said directive: "Member States shall ensure that investment firms are regarded as not fulfilling their obligations […] where they pay or are paid any fee or commission, or provide or are provided with any non-monetary benefit in connection with the provision of an investment service or an ancillary service, to or by any party except the client or a person on behalf of the client, other than where the payment or benefit is designed to enhance the quality of the relevant service to the client; and does not impair compliance with the investment firm's duty to act honestly, fairly and professionally in accordance with the best interest of its clients. The existence, nature and amount of the payment or benefit […] or, where the amount cannot be ascertained, the method of calculating that amount, must be clearly disclosed to the client, in a manner that is comprehensive, accurate and understandable, prior to the provision of the relevant investment or ancillary service […]".

Therefore, the core principle of the current regime is that inducements are generally prohibited unless they fall under specific exceptions. The aim is to try and ensure that the inducements do not impair the intermediary's duty to act honestly, fairly, and professionally, and in the client's best interest. Inducements are permitted if they provide investors with access to a wider range of products or services and meet specific requirements detailed in the MiFID II Delegated Directive. MiFID II also mandates strict, clear and comprehensive disclosure requirements for inducements.

The reason why inducements are kept under such severe control is that they may have far-reaching influence on conflicts of interest, best execution practices, and transparency of service costs. For example, intermediaries might prioritise the distribution of products coming from providers offering higher inducements, thereby biasing the quality of advice and leading to higher costs for investors, poor asset allocation, and even mis-selling. The EU RIS aims at enhancing inducements regulation in order to better protect investors (Annunziata, 2023).

Annunziata (2023) details the improvements proposed by the European Commission. First, there is a proposal to ban inducements in "execution-only" environments, where no investment advice is provided. This provision aims at limiting the intermediaries' incentives to promote products that may not be in the best interest of clients, given that in such environment the inducement could not be justified by any advice. There are also plans to strengthen the existing principle that requires intermediaries to act in the best interests of their clients, ensuring that any inducements received do not compromise the quality of service provided or the fairness and professionalism that intermediaries are expected to have when dealing with investors. Furthermore, it was proposed to enhance the transparency of inducements by requiring clearer, more understandable disclosures to clients. This would involve providing simple explanations of inducements and ensuring that clients are fully informed about the costs associated with the financial products and services they are offered. In addition to that, the improvements in investors' financial literacy would bring benefits to the understanding of the service received, thus empowering clients to evaluate whether the service received is honest, transparent and in their best interest, or if it may be biased by the presence of potential inducements. The European Commission also evaluated improvements and clarifications to the current "enhancement test" under MiFID II. This approach aims at evaluating whether inducements enhance the quality of the relevant service to the client and do not impair the intermediary's obligation to act honestly, fairly, and professionally, in order to assess if the inducement under evaluation should be allowed. All inducements that do not fall within the requirements of the test should be banned. The European Commission promotes a staged approach to regulate inducements, using as a starting point the previously discussed measures, with the plan to review their effectiveness after three years. Based on this assessment, the Commission could consider extending the ban on inducements more broadly across different financial services environments.

The EU Retail Investor Package

The Retail Investor Package, carefully detailed by Hallak (2024), is a fundamental part of the broader EU RIS. It is a legislative initiative introduced by the European Commission on May 2023, aimed at enhancing the framework for retail investor protection within the European Union. The need for this package arises from the broader context of the Capital Markets Union (CMU), a project launched in 2015 with the aim to promote cross-border investments across the EU, that is, to ensure accessibility and integration of capital markets across Member States, thereby benefiting consumers, investors, and companies, regardless of their geographic location.

The importance of the Retail Investor Package (hereinafter, RIP) lies in its dual objective (Hallak, 2024).

First, the enhancement of transparency and investor confidence. The package aims at fostering a better flow of clearer and more relevant information to retail investors, thus empowering them to make well-informed financial decisions. This is critical especially in light of the critiques raised against the current framework due to its complexity and lack of transparency, two significant and substantial barriers to retail investor engagement.

Second, the promotion of trust in capital markets. By addressing potential conflicts of interest and limiting misleading marketing practices, the package seeks to build trust and confidence in the EU capital markets. This is essential for increasing the investor base and ensuring that retail investors can benefit from the wide variety of financial products available within the EU.

The package consists of two main legislative proposals: the Omnibus Directive (COM(2023) 279), which proposes amendments to several key directives, namely, Directive 2009/65/EC (UCITS), Directive 2009/138/EC (Solvency II), Directive 2011/61/EU (AIFMD), Directive 2014/65/EU (MiFID II), Directive 2016/97 (IDD); the Amending Regulation (COM(2023) 278), which proposes updates to Regulation (EU) 1286/2014 (PRIIPs) regarding the modernization of the Key Information Document (KID).

There are several key improvements that the RIP aims to bring with respect to the aforementioned directives (Hallak, 2024).

The package introduces measures to ensure that the information provided to retail investors is clear, concise, and relevant. This includes standardized presentations of risks and costs, as well as the introduction of new sections in the PRIIPs KID, the so-called "Product at a Glance" (which consists of a panel gathering information about the nature of the product, a summary risk indicator, the final cost, the advised holding period and whether the product includes insurance benefits) and a comprehensive sustainability section titled “How environmentally sustainable is this product?”, to harmonise the key information provided and to include new relevant aspects such as the minimum proportion of the investment that is environmentally sustainable and the expected intensity of greenhouse gas emission. Another significant proposal is to ban inducements paid from manufacturers to distributors for certain financial products to reduce the bias in the advice given to retail investors and ensure that investment products offer real value. The package also proposes stricter product governance rules to ensure that financial products are designed and distributed in the retail investor's best interests. This includes the additional requirement for manufacturers to evaluate all costs and charges associated with a product and justify any deviations from established benchmarks, and for distributors to compare products with relevant benchmarks and justify any variance from the benchmark to reduce distribution. These more stringent product governance rules aim at ensuring that retail investors are offered instruments with high value for money. Finally, financial advice should be based on a careful and meticulous assessment of a range of financial products, and independent and cost-efficient advice should be promoted (Hallak, 2024).

While the RIS and the RIP share common goals, the two measures come with several substantial differences worth to be discussed.

Beginning with the scope, the RIP is based more specifically on regulatory amendments to existing directives and regulations, while the RIS encompasses a broader range of initiatives aimed at empowering retail investors, including financial education and literacy programs. Moving to the regulatory focus, the RIP introduces concrete legislative changes regarding especially disclosure, inducements, and product governance. On the other hand, the RIS includes both legislative and non-legislative actions aimed at fostering a more retail investor-friendly environment in the EU. Finally, looking at the implementation, the RIP is currently in the legislative process, with specific proposals being debated in the European Parliament and Council and expected to come into force within the next few years, following the standard legislative procedure in the EU. The RIS is instead an ongoing initiative with a broader and more flexible implementation timeline.

All in all, the RIP represents an important step forward in the EU's efforts to protect retail investors and enhance their participation in the capital markets by creating a robust and investor-friendly financial environment in the EU. The package's alignment with initiatives like the RIS ensures a comprehensive approach to empowering retail investors, ultimately contributing to the success of the broader project of CMU.

Financial literacy and retail investment strategies: a quantitative approach

Despite the lack of a general consensus among scholars on how to define financial literacy (Remund, 2010), it could be thought of as "[…] a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through appropriate, short-term decision-making and sound, long-range financial planning, while mindful of life events and changing economic conditions" (Remund, 2010), or the "peoples' ability to process economic information and make informed decisions about financial planning, wealth accumulation, pensions, and debt" (Lusardi et al., 2013).

Positive effects of financial literacy on financial markets

There are several reasons explaining why financial literacy is given a considerable amount of attention in the EU RIS.

Financial literacy increases the willingness of individuals to participate in financial markets. A study conducted by Van Rooij et al. (2011) provides empirical evidence that the ownership of stocks rises dramatically as literacy increases. This positive relationship holds even when only basic literacy, which gauges basic knowledge and computation skills, is taken into account. The relationship becomes even stronger and more significant when considering more advanced literacy, measured by asking the people in the sample analysed for the purpose of the study a set of specific questions inherently related to financial instruments and capital markets. In particular, the study concludes that stock market participation is dominated by highly literate individuals. To improve the robustness of this finding, Van Rooij et al. (2011) try to understand whether the positive relationship is still valid when including in the analysis characteristics that determine participation in financial markets, that is, age, education, gender, wealth, income (in logs), number of children, given the fact that financial literacy exhibits high and positive correlation with all these variables and the result may therefore turn out to be biased. When stock market participation is regressed against all the aforementioned variables and financial literacy (included in the regression as "Advanced literacy index"), the effect of the latter (that is, the OLS coefficient associated to that variable) is still positive and statistically significant, proving empirically that financial literacy does affect individuals' participation in financial markets even when accounting for income, wealth and other characteristics. The results of the regression are summarised in figure I.

Figure I. Stock market participation: multivariate OLS regression and results. Van Rooij et al. (2011)

	OLS (2)	
Advanced literacy index	0.0892***	(0.0118)
Age dummies (Base group: age ≤ 30)		
30 < age ≤ 40	−0.00850	(0.0452)
40 < age ≤ 50	0.0353	(0.0467)
50 < age ≤ 60	0.0165	(0.0474)
Age > 60	0.0734	(0.0595)
Education dummies (Base group: < int. vocational)		
Intermediate vocational	0.0247	(0.0363)
Secondary pre-university	0.0298	(0.0414)
Higher vocational	0.0717*	(0.0366)
University	0.102**	(0.0472)
Male	0.0715***	(0.0275)
Married	−0.0267	(0.0312)
Number of children	0.00290	(0.0151)
Retired	−0.0311	(0.0530)
Self-employed	0.0319	(0.0574)
Ln(household income)	0.0848***	(0.0263)
Second wealth quartile (€2,300 < wealth ≤ €45,500)	0.0749**	(0.0346)
Third wealth quartile (€45,500 < wealth ≤ €197,300)	0.117***	(0.0366)
Fourth wealth quartile (wealth > €197,300)	0.160***	(0.0425)
Constant	−0.760***	(0.251)
Observations		1115
R-squared		0.135

Additionally, Van Rooij et al. (2011) test for the direction of the causal effect, given that while it is true that financial literacy affects stock market participation, it may also be true that by participating in financial markets individuals may gain knowledge and skills thereby improving their financial literacy. This fact makes it clear that financial literacy may suffer from endogeneity issues, that is, there may be some reverse causality where the effect becomes the cause and vice versa. This may lead the OLS estimate to be upward biased, thereby making it complicated to fully rely on that coefficient. Another source of bias of the OLS coefficient may be determined by the fact that financial literacy and knowledge are measured by the means of questionnaires, and for this reason some of the answers may be the result of a guess, especially the most complicated ones, thereby making the OLS results downward biased. To account for the endogeneity issues, Van Rooij et al. (2011) consider using instrumental variables in order to perform a two-stage regression. The first instrumental variable is obtained by gathering information on the questionnaire respondents' oldest sibling's financial status, to determine whether the financial condition of the latter is worse, equal or better than the respondent. In fact, other people's experiences are not within the realm of influence of the respondent, thereby making it an exogenous variable. For the same reason, the respondents' parents' knowledge of financial topics is used as another instrumental variable. In the first stage of the regression, financial literacy is regressed against the two instrumental variables, together with the control variables already included in the first OLS regression. The main results of the first stage are highlighted in figure II. For the sake of simplicity, here are reported only the results relative to the instrumental variables. In fact, the coefficients associated with the controls confirm the already stated hypothesis that these variables affect financial literacy with the same effect with which they affect stock market participation. Hence, these coefficients have the same sign and comparable magnitude with those displayed in figure I.

Figure II. First stage regression. Instrumental variables coefficients and associated p-values.
Van Rooij et al. (2011)

Financial situation oldest sibling (Base group: no sibling)		
Worse	0.308***	(0.0877)
The same or better	0.113	(0.0827)
Parents' understanding of financial matters (Base: low)		
Intermediate or high	−0.230**	(0.101)
Don't know	−0.553***	(0.155)
Constant	−0.381	(0.562)
Observations		1035
R-squared		0.342
F-statistic first-stage regression		8.818

These findings indicate a negative correlation between siblings' financial situations and financial literacy. Put differently, the likelihood of respondents having more financial literacy increases if their siblings are in poorer financial status than them. Similarly, having parents with low financial understanding increases the likelihood that respondents are more financially literate.

In the second stage of the regression, Van Rooij et al. (2011) perform the same regression defined in figure I, with the important difference that financial literacy has now been instrumented. The results of this regression are presented in figure III.

Figure III. Second stage GMM regression. Regressing stock market participation on the instrumented financial literacy variable and a number of control variables.
Van Rooij et al. (2011)

	GMM (2)	
Advanced literacy index	0.177**	(0.0861)
Age dummies (Base group: age ≤ 30)		
30 < age ≤ 40	0.0106	(0.0507)
40 < age ≤ 50	0.0686	(0.0508)
50 < age ≤ 60	0.0380	(0.0508)
Age > 60	0.0965	(0.0609)
Education dummies (Base group < intermed. vocational)		
Intermediate vocational	0.0150	(0.0392)
Secondary pre-university	0.00663	(0.0517)
Higher vocational	0.0551	(0.0431)
University	0.0557	(0.0576)
Male	0.0303	(0.0367)
Married	−0.0371	(0.0347)
Number of children	0.0125	(0.0159)
Retired	−0.00625	(0.0538)
Self-employed	0.0136	(0.0631)
Ln(household income)	0.0764***	(0.0279)
Second wealth quartile (€2,300 < wealth ≤ €45,500)	0.0495	(0.0449)
Third wealth quartile (€45,500 < wealth ≤ €197,300)	0.0820	(0.0523)
Fourth wealth quartile (wealth > €197,300)	0.111*	(0.0621)
Basic literacy index	−0.0105	(0.0265)
Economics education dummies (Base group: A lot)		
Some	0.0170	(0.0448)
Little	0.0238	(0.0497)
Hardly at all	0.0240	(0.0628)
Daily use of economics dummies (Base group: A lot)		
Some	−0.0803*	(0.0469)
Little	−0.102*	(0.0552)
Hardly at all	−0.0349	(0.0678)
Constant	−0.587**	(0.275)
Observations		1035
R-squared		0.120
Hansen *J*-test *p*-value		0.295
F-statistic first-stage regression		8.818
p-Value exogeneity test		0.255

According to the coefficients obtained in the second stage of the Generalised Method of Moments (GMM) regression, there is still a positive and statistically significant relationship between financial literacy and stock market participation. Additionally, the relatively high p-value associated with the exogeneity test makes it not possible to reject the hypothesis of exogeneity. As a result, the OLS and GMM coefficients have similar magnitude. Van Rooij et al. (2011) conclude that financial literacy is indeed a significant factor influencing stock market involvement. People with less financial literacy are less likely to participate in financial markets.

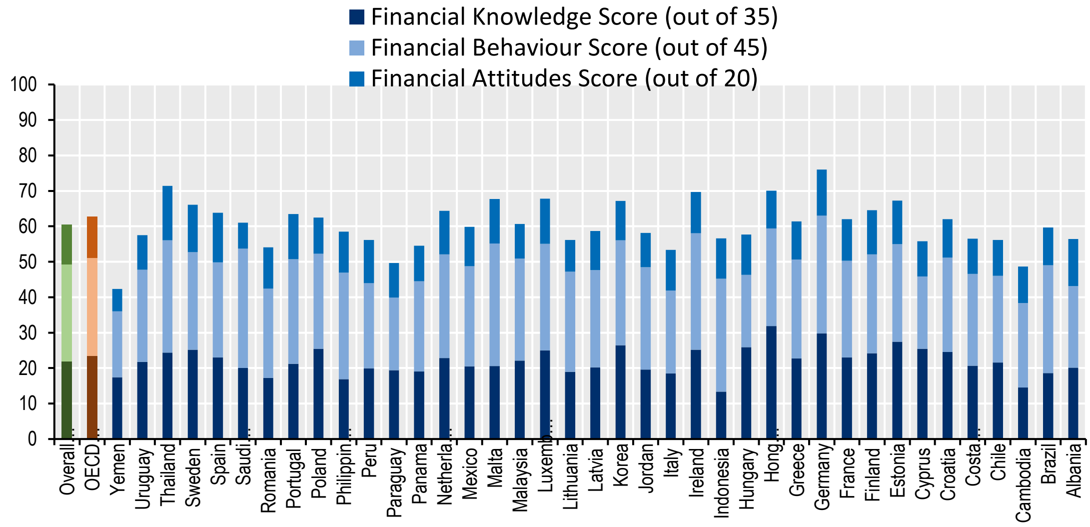
This result has several beneficial implications for financial markets. In fact, a more literate investors base is able to better understand investments, knows when to buy and when to sell according to the general macroeconomic and financial scenario thereby improving risk management and reducing potential losses, realises the importance of holding diversified portfolios to mitigate systemic risk, and helps detecting and preventing financial fraud (Di Noia, 2024).

The findings support the commitment of the European Commission to encourage and support policies aimed at improving financial literacy among European households with the aim to foster investments in European capital markets thereby making them deeper, larger and stronger. In fact, the European Commission estimates that in order to achieve the green and digital transitions, yearly investments in the EU must rise by €520 billion over the course of the next ten years, and strong financial markets would be instrumental to achieve this goal (Di Noia, 2024).

Level of financial literacy of adults in a selected sample of European countries

Data about financial literacy in Europe show a low level of financial literacy among adults. In its 2023 International Survey of Adult Financial Literacy, the OECD measured the level of financial literacy in 40 different countries. To measure financial literacy, it has been used an aggregate of three different indicators: financial knowledge, defined as the fundamental understanding of financial ideas and the capacity to use numeracy abilities in financial contexts that enables people to appropriately manage their money, evaluate different financial services and products to make wise choices, and respond to situations that can have an impact on their financial stability; financial behaviour, that is, the financial habits and actions of individuals; financial attitude, or attitude towards money which focuses on the individuals' preferences between spending for the short term and saving for the long term. These three components define the financial literacy index, which awards the countries in the sample a score between 0 and 100. The OECD also identifies the threshold of 70 out of 100 as a "Minimum target score". Figure IV shows the financial literacy score of each country in the sample. By looking at the 21 European countries, only Germany and Ireland (that is, less than 10% of the sample) achieve this minimum threshold, with 76 and 70 points out of 100 respectively, while the average percentage of European adults with a score of at least 70 out of 100 on financial literacy is around 38% (OECD, 2023).

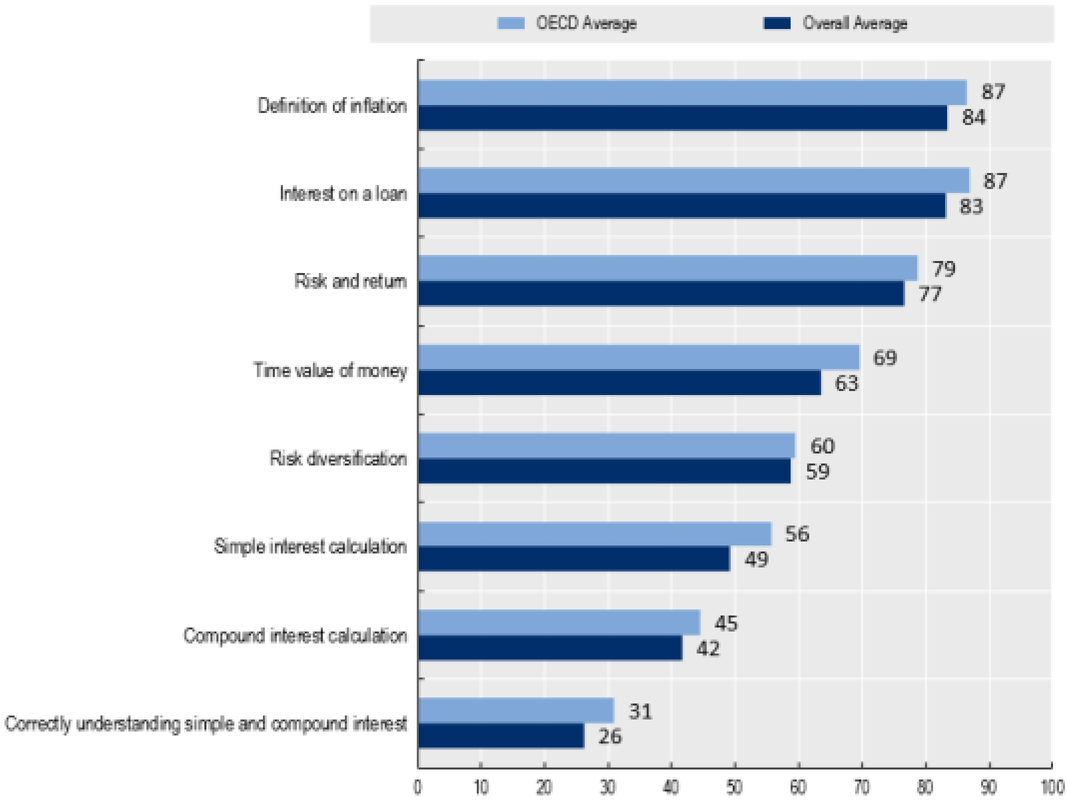
Figure IV. Financial literacy scores across countries.
Di Noia (2024)



By decomposing financial literacy in its components, it is also possible to infer that adults frequently have poor financial literacy and bad financial habits (Di Noia, 2024). The average percentage of in-sample European adults achieving the minimum financial knowledge score (obtained by giving at least five right answers out of seven questions about financial knowledge) is 58% (OECD, 2023). This result has deeper implications, given that not all the questions in the questionnaire should be given the same level of relevance. In fact, for example, while the majority of adults (87%) can calculate the interest on a loan using basic mathematical skills and are aware of what inflation is, fewer understand the time value of money and how inflation affects their money (69%), and an even smaller part is able to elaborate and correctly calculate compound interest rates (45%). Also, only 60% of adults is aware of the important role played by risk diversification (OECD, 2023). Figure V summarises these results.

For what concerns financial behaviours, when making a financial product or service purchase, only 26% of adults evaluate items among different suppliers and 24% relies upon independent sources for guidance (OECD, 2023). While these data may be wrongfully interpreted as a sign of adults' ability to make the best financial decisions on their own, reality is that on average investors do not possess a sufficient amount of knowledge and skills to rely solely on themselves when making investment decisions. These behaviours may in fact result in higher costs and higher risks of incurring in losses or not realising the required return on the investment.

Figure V. Percentage of adults providing the right answer to each of the 8 questions of the OECD financial knowledge survey.
OECD (2023)



The new wave of retail investors: evidence from France

Since the outbreak of the COVID-19 pandemic at the beginning of 2020, a significant amount of new retail investors entered financial markets for the first time. In France, as of 2023, 12% of adults (at least 18 years old) invested in financial instruments such as shares, mutual funds, ETFs and crypto assets at least once and for the first time since the global pandemic. This translates into 1.12 million new investors entering financial markets (Di Noia, 2024).

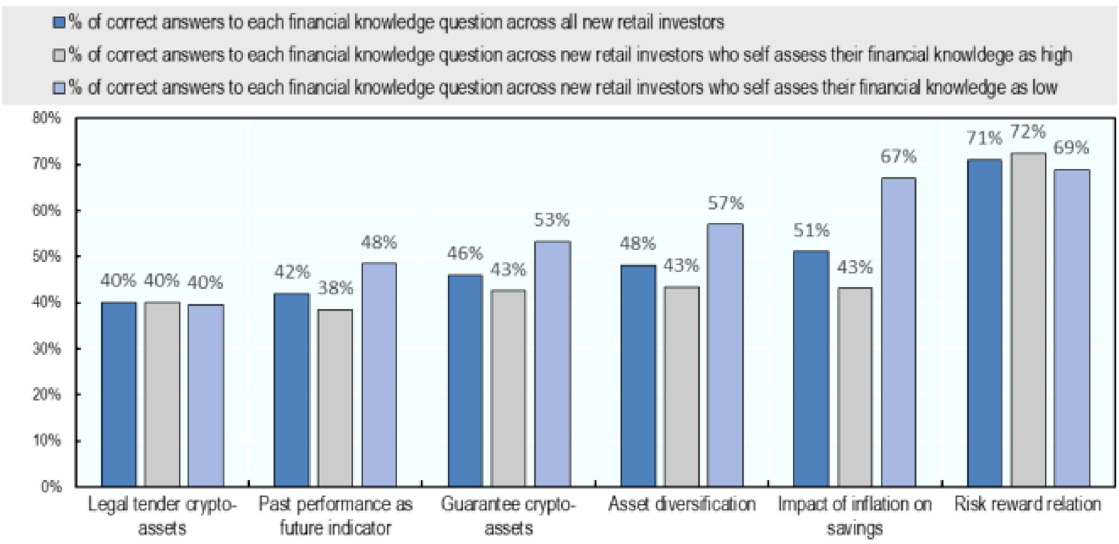
At a first glance, this result may look promising. In fact, as it has been said, fostering participation in financial markets is one of the main objectives of the European Commission for all the already discussed benefits that a larger investor base may bring to the stability and liquidity of markets. Nevertheless, it is interesting and relevant to go deep into the characteristics of the new investors, in order to understand their main features as well as their financial behaviours, preferences, and beliefs and assess potential threats for financial markets.

To begin with, new French retail investors are younger than traditional investors, averaging 36 years old against the 51 years old of traditional investors (Di Noia, 2024). A lower average age of the investor base may suggest an improvement in the financial literacy: in fact, it may be straightforward to argue that younger people are attracted into financial markets because they have a better understanding of them and perceive them as less complicated than traditional investors, controlling for age. To verify this claim, it is necessary to collect additional data and statistics. By looking at the youngest portion of the new retail investor base, the 80% of those with an age between 18 and 24 years old invest exclusively to realise huge gains in the lowest possible amount of time (Di Noia, 2024).

An explanation for this attitude may be the fact that the main sources of information for the young investors are social media (41%) and influencers (29%) (Di Noia, 2024). Social media are plenty of people giving financial and investment advice. Kakhbod et al. (2023) conducted a study using data collected on the platform StockTwits on 29000 financial influencers, or “finfluencers”. By carrying out an a-posteriori analysis on how the advice of each influencer performed, that is, on the realised abnormal return, or alpha, generated by following the investment strategy suggested by each finfluencer, they classified the sample into three categories: skilled, that is, those able to generate monthly persistent average excess returns of 2.6%; unskilled, or those that on average do not realise any abnormal return; anti-skilled, realising monthly average excess returns of -2.3%. Additional evidence on the bad performance of anti-skilled finfluencers is given by the fact that a strategy that is contrarian to the advice of these influencers generates monthly excess returns of 1.2%. Out of the 29000 influencers in the sample, the 28% happens to be skilled while the remaining 72% is either unskilled (16%) or anti-skilled (56%). The most alarming data is that unskilled and anti-skilled influencers are those with the most followers, especially young people, as these influencers ride investors’ sentiment and behavioural biases, charming their audience with the false promise of fast and easy gains that is appealing especially for younger investors. The over-reliance of young people, which constitute the biggest part of the new wave of retail investors, on “bad” advice may be detrimental for them and for financial markets as a whole, as it may lead to financial losses and decrease of confidence in the markets.

Another significant issue associated with the new wave of retail investors is their belief that they do possess a sufficient level of financial knowledge and skills to invest without looking for professional advice. The study conducted by the OECD on new retail investors in France (2023) included a six-questions questionnaire to evaluate the new investors' ability to understand fundamental financial and economic concepts. The average rate of right answers was 50%. The ones with the lowest level of financial knowledge were the youngest part of the sample, that is, those with an age between 18 and 24 years old, and those claiming to have advanced knowledge of financial matters. Out of six questions, only one was properly answered by over one-third (34%) of individuals who believe they have extremely good financial knowledge. Having said that, it is relevant to point out that those claiming to have exceptional financial knowledge constituted the 67% of the sample (Di Noia, 2024). Figure VI highlights another significant piece of evidence, that is, those claiming to have high financial knowledge tend to be outperformed in the six-questions questionnaire of the OECD (2023) by those claiming to have little to no financial knowledge. The over-reliance on insufficient capacities may exacerbate the losses deriving from bad investments, thereby decreasing confidence and leading people to leave financial markets.

Figure VI. Claimed and actual levels of financial knowledge.
OECD (2023)



Nevertheless, the new wave of investors may also bring benefits to financial markets, especially when it comes to sustainability-related matters. In fact, 83% of new investors claims that the sustainability of a product is a relevant and valuable factor when making investment decisions (Di Noia, 2024).

Students and financial literacy

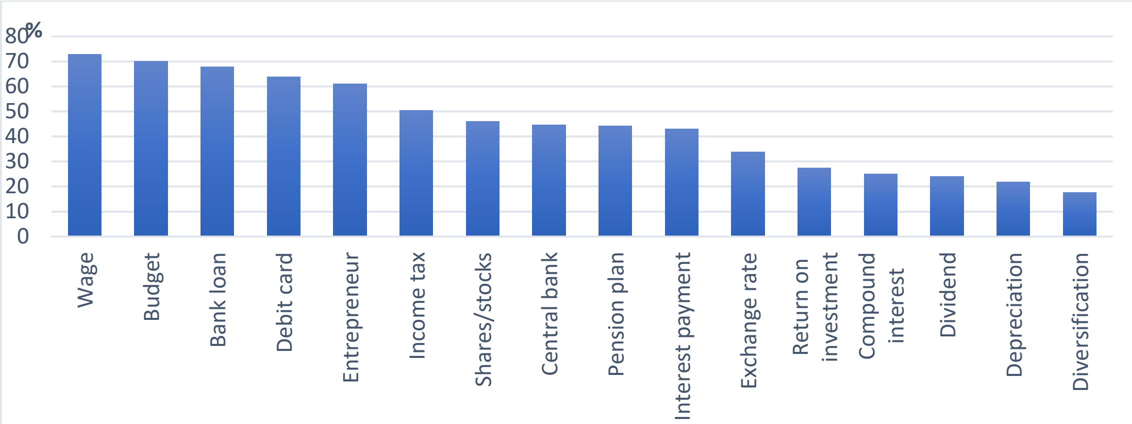
Having said that many young people are getting attracted into financial markets, it may be of interest to look at even younger people to investigate their level of financial knowledge and exposure to financial terms. The results of the investigation may be useful to assess whether there is the need to promote financial literacy programmes in schools.

In the Fourth assessment of students' financial knowledge, the OECD (2024) analysed a sample of students with an age between 15 years 3 months and 16 years 2 months attending a school and having completed at least 6 years of schooling when the study was made. The study was partly aimed at assessing the students' exposure to financial concepts in school. A list of 16 terms pertaining to economics and finance was given to the students in the sample. Averaging for all the OECD countries included in the sample, more than two thirds of the students stated that they got to know basic terms such as wage (73% of the students), budget (70%) or bank loan (68%) at school in the previous year and were still aware of the meaning of each of these terms. Nevertheless, the situation worsened when looking at more complex terms such as return on investment (27%), compound interest (25%), dividend (24%), depreciation (22%) and diversification (18%).

The data of these study could be used to back the OECD Recommendation on Financial Literacy, which emphasises the need to promote long-term and systematic programmes in schools to help young people become financially literate (OECD, 2024). In fact, including financial literacy courses in schools would have significant positive effects on students. This claim is supported by several studies conducted in Europe and in South America.

Romagnoli and Trifilidis (2013) analysed the impact of an initiative by the Bank of Italy and the Italian Ministry of Education in 2008 to include financial literacy in the school programmes.

Figure VII. Percentage of pupils who stated that they learned each of these terms throughout the course of the previous academic year and are still aware of their meaning.
Di Noia (2024)



Initially the initiative, addressed to primary, junior high and high schools, was launched in three cities and involved 32 classes. In the subsequent years the programme gained popularity and was extended to the whole nation, so that in the 2011-2012 school year it included 1152 classes and a total of 23000 pupils, thereby significantly increasing the sample size and making it possible to draw more robust conclusions from the analysis of impact of the initiative. After attending classes about financial matters, financial knowledge, assessed by asking students a set of finance-related questions before and after the lessons, improved considerably, with a positive and significant effect of the educational programme on financial literacy. Also, as the initiative had been in place for more than one school year, it was possible to verify knowledge retention given that some classes took the financial knowledge assessment more than once. The findings indicated that over time, at least some of the learned concepts were maintained. Additionally, the research results indicated a gender disparity in financial literacy that tended to close because of the programme. The initiative was therefore generally successful in raising pupils' financial literacy.

Several other studies conducted in Peru and Spain showed similar results, highlighting also positive spillover effects on the students' surrounding social environment. It was in fact noted that after attending classes about economics and finance, many pupils began talking about financial topics with their parents, thereby making them more financially literate (Bover et al., 2018; Frisancho, 2023). Relevant results highlight that the positive spillover effects are more pronounced and robust for parents from lower-income households that, on average, experienced a reduction of the likelihood of default by 26%, a raise of credit ratings by 5%, and an increase of current debt levels by 40%. Additionally, the parents of daughters showed experienced stronger positive impacts from the financial education sessions, as their credit score increases by a considerable 6.7%, and the amount of their unpaid debts decreases by 28% (Frisancho, 2023). Therefore, these findings also support the hypothesis that financial programmes in school are able to bridge the gender gap that exists in financial literacy.

Future developments

In light of what has been said so far and of the empirical evidence gathered, it is clear that financial literacy programmes should be a priority to be addressed in the upcoming years. In its 2020 Recommendation on Financial Literacy, the OECD recommended the development of a single, all-encompassing tool on financial literacy to help governments, public authorities and pertinent parties create, carry out, and assess financial literacy programmes, and focusing in particular on financial literacy initiatives on a nation-wide basis and their efficient and effective implementation (Di Noia, 2024). In particular, the OECD commits to coordinate the creation of new surveys and updating the existing adult financial literacy questionnaires, to develop competency models to direct the creation of financial literacy initiatives, to assist nations such as France and Malta to facilitate the creation and execution of national financial literacy programmes and, more broadly, to evaluate national financial consumer protection systems in comparison to the G20/OECD Principles in order to pinpoint weaknesses and potential areas for development (Di Noia, 2024).

CHAPTER III

THE CMU AND PRODUCT GOVERNANCE

Historical development of the CMU

The idea of a Capital Markets Union (CMU) in Europe is a direct consequence of one of the primary objectives of the European Community since its early origins, that is, the creation of an integrated and efficient European financial market.

The concept of an integrated European capital market was officially mentioned for the first time in the Treaty of Rome (1957), which established the European Economic Community (EEC). In fact, article 2 of this treaty claims that "The Community shall have as its task, by establishing a common market and progressively approximating the economic policies of Member States, to promote throughout the Community a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated raising of the standard of living and closer relations between the States belonging to it".

Several additional articles of the Treaty of Rome aimed at fostering the creation and development of the common market.

Article 99 promoted a harmonisation of the laws of the different Member State: "The Commission shall consider how the legislation of the various Member States concerning turnover taxes, excise duties and other forms of indirect taxation, including countervailing measures applicable to trade between Member States, can be harmonised in the interest of the common market".

Article 100 drew requirements for the European Council to foster the implementation of the harmonisation proposed by article 99: "The Council shall, acting unanimously on a proposal from the Commission, issue directives for the approximation of such provisions laid down by law, regulation or administrative action in Member States as directly affect the establishment or functioning of the common market".

Furthermore, article 129 defined the creation of the European Investment Bank. Its task was to support the creation and correct development of the common market, as claimed by article 130: "The task of the European Investment Bank shall be to contribute, by having recourse to the capital market and utilising its own resources, to the balanced and steady development of the common market in the interest of the Community".

Additionally, several other articles were introduced to define the requirements aimed at protecting all the activities carried out in the common market, and the market itself.

These articles make it clear that the creation of a common market was a priority for the Community, as it was perceived as an important tool to achieve the Community's objectives. Nonetheless, there was no significant and concrete action to achieve progresses in this area, which was being developed slowly due to divergent national regulations and market practices.

The project of a common market gained renewed importance with the Treaty of Maastricht of 1992. This treaty, providing amendments to the Treaty of Rome, stressed again the importance of achieving a single European market to complement the monetary union.

The subsequent step for the development of a unified European capital market Commission's Financial Services Action Plan (FSAP) of 1999. The FSAP highlighted several priorities to achieve a standardised pan-European financial market, including provisions for integrating securities and derivatives markets and for setting up EU-wide mechanisms of capital raising (Veil, 2021).

The Global Financial Crisis of 2007-2008 revealed severe weaknesses of the laws ruling the functioning of global financial markets (Thakor, 2015). In Europe, regulatory deficiencies and the lack of an integrated capital market became manifest. It became clear that an integrated capital market could significantly support economic resilience by improving and expanding the provision of liquidity which would ultimately support market stability (Moloney, 2023).

The CMU Action Plan 2015

On September 2015, the European Commission published the Capital Markets Union (CMU) Action Plan to emphasise the importance of creating a stronger and more integrated European capital market to complement Europe's banking system, and to define a concrete strategy to achieve such a truly integrated capital market across all 28 European Union Member States. The CMU was in fact seen as a crucial tool to strengthen and support the European economy by stimulating investment and ensuring that the capital markets could effectively support growth, especially in the context of the aftermath of the global financial crisis (European Commission, 2015).

The European economy, despite its size being comparable to the US, was found to have developed and more fragmented capital markets. This fact hampered the efficiency of investment and economic resilience, determining bad responses to financial shocks. The Commission promoted the creation of a CMU with the aim to address these issues by ensuring the free flow of capital, the third founding pillar of the EU. In particular, the aim of the Action Plan as stated by the European Commission (2015) itself was "to build a single market for capital from the bottom up, identifying barriers and knocking them down one by one, creating a sense of momentum, and sparking a growing confidence for investing in Europe's future".

The main objectives of the CMU were the following: the improvement of the flow of investments; a better connection of financing opportunities with investment needs; the enhancement of market stability by the means of an integrated market that could help reducing financial risk by diversifying and sharing it all across a bigger market, rather than leaving each national market dealing with the same risk on its own; rescuing the European economy's vulnerability to banking crises; eliminating cross-border barriers to increase internal competition and improve the European financial markets' competitiveness on a global scale. In pursuing these objectives, the Action Plan identified certain priority areas to be addressed to achieve a fully integrated and effective European capital market (European Commission, 2015).

Financing the drivers of innovation

The improvement of financing solutions for innovative businesses is one of the top priorities of the Plan, with the aim to diversify, facilitate and enhance access to finance for the main drivers of innovation, especially start-ups and non-listed companies, by expanding non-bank financing channels. Raising capital from a wide range of differentiated sources would in fact help companies to diversify their capital structure, thereby reducing the dependence on a single financing source (Ravelli et al., 2024).

Before delving into the non-bank sources of funding, it is worth mentioning the fact that insofar as future SME access to finance is concerned, the Capital Markets Union will not render regional banking institutions obsolete. The European financial system can only be stabilised to a considerable extent if banks and capital markets work in synergy (Werner et al., 2020).

The Plan (European Commission, 2015) acknowledged the growing relevance of crowdfunding platforms in Europe, alternative financing options that can support businesses, particularly SMEs, to raise the funds they need outside traditional banking channels. Crowdfunding is in fact a method for raising external cash which relies upon a vast audience, instead of a select number of specialised investors, where each individual contributes a tiny portion of the required funds. As it relies upon online platforms, this method represents a fast and direct way for companies to get access to funding (OECD, 2015). It is particularly beneficial for SMEs for several reasons. As a substitute for traditional financing sources like bank loans, crowdfunding offers SMEs an additional and useful source of financing, given the fact that SMEs frequently find it difficult to obtain finance from traditional financial institutions because of their perceived riskiness and lack of collateral. There is also evidence of a positive correlation between the use of crowdfunding and SMEs' growth opportunities and improved performances. Additionally, through their crowdfunding initiatives, SMEs get access to direct customer engagement and feedback, resulting in better goods and services offered (Eldridge et al., 2021).

At the same time, the Action Plan promoted the development of cross-border networks for business angels, especially in regions like Central and Eastern Europe where capital markets are less developed, as they play an important part in early-stage financing, especially for innovative start-ups. The Action Plan also called for an increase in the size and a stimulation of cross-border activity of venture capital funds while promoting the establishment of pan-European funds-of-funds to attract more private investment (European Commission, 2015).

Additionally, the Plan aimed at improving the European framework for private placements, as it acknowledged that these solutions can be a relevant alternative for companies to raise capital (European Commission, 2015).

Within the context of the CMU, a private placement could be defined as “A medium or long-term, preferably unlisted, private debt securities transaction between a (listed or unlisted) company (typically without a public rating) and a small number of non-bank institutional investors (such as insurance companies, pension funds and investment funds), based on deal-specific documentation negotiated between the borrower and the investor(s), generally, but not necessarily, with the participation of one or more bank intermediaries as arranger(s) usually acting in an agency capacity (not as underwriter) and without general solicitation or advertising. It typically offers the end investors higher returns than are available on publicly offered bonds and the debt securities rank pari passu with unsecured bank loans” (Graaf, 2018).

There are several reasons why private placements could be advantageous for companies. The rising cost of long-term financing provided by regulated institutions like commercial banks is one factor driving the popularity of private placements. One of the key benefits of private placements appears to be a set interest rate with a long-term funding agreement. Private placement maturities are often longer than those of traditional commercial banking transactions. The bonds issued in the private placement market have in fact maturities that usually exceed five years, which is the point at which bank financing for SMEs normally ends. The majority of investors in the private placement market seek to make investments that will yield steady returns over an extended length of time, while issuers may profit from the security of having long-term debt in place (and frequently from reduced interest rates as well). This can be especially alluring in sectors including corporate finance, asset finance, credit tenant leasing, project finance, and infrastructure finance (Graaf, 2018; Ravelli et al., 2024). One additional benefit of private placements is that they do not require a prospectus or continuous disclosure obligations that come with public offerings, making them quicker and less costly to set up (Graaf, 2018).

The US private placements market is bigger in terms of trade volume compared to the EU one, and its strength mainly comes from a combination of an easily navigable securities law exemption, a streamlined system for the ultimate investors' regulatory capital treatment, standardised documentation on new issues, uniform tax treatment, and the lack of regulatory or capital barriers, given the fact that the US market consists of a fully integrated capital market (Graaf, 2018). On the other hand, European private placements mostly occur on domestic markets with predominantly local capital sources. In this fragmented scenario, two markets stand out as being particularly dominant. The first one is the German Schuldschein market, where a Schuldschein (also known as SSD) is a privately placed, German law-governed loan agreement that is usually unsecured and unsubordinated. The second largest private placements market in Europe is the French Euro-PP market, where Euro-PP transactions are carried out. These markets and the instruments traded within them are regulated by local regulations, and investors and issuers active in these markets are typically local as well (European Commission, 2017; Graaf, 2018).

The Action Plan acknowledged that several European businesses are used to go to US markets for private placements due to the lack of standardised documentation and processes in Europe. This is why the Plan emphasised the need to improve the EU private placements market, to make it more appealing and competitive on a global scale (European Commission, 2015).

Improving public markets accessibility

On a similar fashion for what was proposed with respect to innovative companies, the Plan aimed at simplifying the entry on public markets to all companies by reducing barriers of entry while maintaining a high degree of investor protection.

To do so, the Action Plan suggested an improvement of SME Growth Markets (European Commission, 2015). With the goal of enhancing SMEs' access to capital markets, MiFID

II created a unique kind of Multilateral Trading Facility (MTF) in 2018 called “SME Growth Market” (SME GM). These markets target small and medium-sized businesses (SMEs), which frequently find it difficult to raise capital through regular public markets because of the high costs and intricate regulatory restrictions. In order for a trading platform to be designated as a SME GM, a minimum of 50% of the issuers on the platform must fit the EU's definition of SMEs, that is, an issuer whose market capitalisation is less than € 200 million and whose shares have been allowed to trade for less than three years or, for issuers without equity instruments traded on any trading platform, an issuer whose total nominal value of all loan issuances made on all Union trading venues during the preceding calendar year is lower than € 50 million. The goal of this classification is to improve regulatory flexibility so that SMEs can comply with listing requirements and still provide sufficient protection for investors. SME GMs provide several benefits to SMEs, including less stringent requirements for the disclosure of insider lists, a better and easier liquidity provision for SME issuers, simplified requirements for the production of Prospectuses, and softer penalty rates regarding SME transactions and settlement fails (ESMA, 2021).

The CMU aimed at achieving a balanced regulatory framework for these platforms while guaranteeing sufficient investor protection without imposing excessive and unnecessary administrative burdens, in order to support smaller companies in the path to be eventually listed on larger exchanges.

To serve this purpose, the Action Plan also introduced a reform on the Prospectus Directive. This reform was one of the main measures for the achievement of the CMU. In fact, the unification of prospectus law was seen as necessary, given that divergences in the approach of each Member State would cause a fragmentation of the pan-European integrated market (Veil, 2021).

Producing a prospectus entailed high costs, thereby being a relevant barrier to public listing, especially for SMEs. The Action Plan aimed at reducing and simplifying the requirements under the Prospectus Directive, thus reducing the financial burden of the companies, especially SMEs, willing to enter public markets. The original framework established a simplified prospectus to be used in secondary issuance for issuers whose securities are admitted to trading on a Regulated Market or a SME GM for a minimum of 18 months, as well as a proportionate EU growth prospectus designed specifically for SMEs. The EU Growth prospectus attempted to lower the price that smaller issuers must pay to prepare a prospectus while simultaneously giving investors all the information they need to evaluate the offer and make an investment choice. The amendment to the Prospectus Directive made in this sense possible for issuers listed on a SME GM to use the simplified prospectus to get access to Regulated Markets in an easier way compared to other, bigger issuers (ESMA, 2021).

Promoting long-term and sustainable investments

Another relevant area of intervention was the promotion of long-term, sustainable investments by fostering the flow of private capital in a more supportive regulatory environment.

The Action Plan aimed at promoting the growth of European Long-Term Investment Funds (ELTIFs), financial instruments explicitly designed to simplify cross-border, long-term investments in sustainable projects, including energy and infrastructure, by making them eligible for tax incentives and thereby more attractive to both retail and institutional investors. The Plan identified ELTIFs as instrumental for the flow of capital into long-term, illiquid assets that could support economic growth. The focus on sustainability aspects also translated in the promotion of ESG (Environmental, Social, and Governance) investments to finance "green" and sustainable projects and in the creation of a more standardised green bond market (European Commission, 2015).

Fostering retail and institutional investors' participation

Increasing the participation and the engagement of both retail and institutional investors in capital markets was another relevant aspect included in the Action Plan. The need to address this area stemmed from relevant considerations, that is, the low involvement of European retail investors in financial markets and the preference of retail investors for not engaging into long-term investments because of regulatory constraints and low expected returns.

In order to narrowly target these issues, the European Commission issued in 2015 a Green Paper (hereinafter, the Paper) on retail financial services to complement the Action Plan and better support the achievement of a fully integrated single market for financial services in Europe. The Paper focused on enhancing the accessibility, affordability and quality of EU financial services to benefit both retail and institutional investors.

The Paper identified several barriers that could explain the low appeal that financial markets could have for many European investors (European Commission, 2015).

The fragmentation of the financial services sector, caused by the different regulations and supervisory practices implemented by each Member State, could make it hard for firms to offer products and services across borders, resulting in minimal cross-border activity and ultimately in a narrower range of financial services available to European investors. An enhancement of cross-border activity could make investors able to get access to a wider selection of insurance, loans, payment services, and investment products, thereby stimulating competition, lowering costs and improving the quality of the products and services offered (Boer et al., 2023).

Another barrier could be represented by investors' confidence and its progressive decrease as a consequence of the Global Financial Crisis. In fact, aftermath of the crisis saw investors left with minimal trust in financial institutions and the products and services they offered, and this impacted the growth and development of an integrated market in retail financial services. Also, investors reluctance to engage with foreign financial institutions could also be explained by uncertainty around regulatory protection, language barriers, or low familiarity with foreign products. In these regards, the Paper highlighted the need to restore confidence in the market by improving the transparency and comparability of financial instruments and their protection of investors' rights. The document suggested possible actions to ensure that financial products are safe, comprehensible, and fairly marketed across the EU. Concrete examples could be the portability of financial instruments, including bank accounts and insurance policies (health insurance, life insurance and professional indemnity insurance) when investors move from one EU country to another, and an improvement of cross-border financial dispute resolution mechanisms to increase consumer confidence, and therefore willingness, for the purchase of cross-border financial instruments. Additional barriers could be represented by the disparities in the pricing structure of similar products, often times offered by the same provider, across Member States, and by the high operational and compliance costs faced by financial institutions when trying to enter markets in other EU countries (European Commission, 2015).

The Green Paper acknowledged the relevance that digitalisation may have in reducing the identified barriers and facilitate cross-border integration, given the many benefits of the implementation of digital tools on financial markets that have already been mentioned and that will be further analysed later in the discussion (European Commission, 2015).

The discussion about institutional investors is further developed in the Action Plan. In this sense, the CMU objective was to adjust prudential regulations, such as Solvency II, to push institutional investors into long-term and SME investments. It also tried to reduce barriers to cross-border distribution of investment funds as it could be helpful for fostering competition among different funds, thereby resulting in increased products and services quality and lower costs for investors. The Action Plan also aimed at creating an integrated market for personal pensions, such as a European Personal Pension framework, to support and enhance the mobility of long-term savings (European Commission, 2015).

Additional objectives on banking capacity, cross-border investments and market infrastructure

The additional objectives pursued by the Action Plan for the achievement of an effective CMU included expanding banking capacity, facilitating and promoting cross-border investments, and enhancing market infrastructure.

In order to thin out the balance sheets of many banks thereby making them able to increase the value of the loans that could be granted to SMEs, the Plan aimed at improving securitisation markets with the introduction of an EU-wide framework for STS (simple, transparent, standardised) securitisation (European Commission, 2015).

The CMU aimed at fostering cross-border investing by addressing the legal uncertainties caused by the regulatory differences in the various Member States. Doing so would require a harmonisation of the laws regulating securities ownership and insolvency laws as well as the development of a single market for covered bonds, as these measures were seen as necessary to eliminate barriers to cross-border investing. Furthermore, in order to guarantee the efficiency and the safety of cross-border investment activities, the CMU also proposed to harmonise post-trade infrastructures and to renovate regulatory practices (including a better clarification about which laws to be applied in case of a cross-border financial transaction involving securities) (European Commission, 2015). These measures could bring a significant improvement in post-trade infrastructures, thereby contributing to enhance the overall market infrastructure.

Challenges to the full achievement of the CMU: a focus on Brexit

Notwithstanding its early impetus, the CMU encountered a number of obstacles that hampered its growth and development.

The fragmented infrastructure of European capital markets, exacerbated by the different levels of market and regulatory development across the EU, is one major obstacle. In order to create an integrated financial market, Europe must unite its 27 distinct markets and sovereign states, each of which has grown independently through the application of regional financial and legal laws. Despite the fact that maximum harmonisation would theoretically seem like a simple fix, these discrepancies would prevent it from receiving enough political support. The different level of development of financial markets also results in differing investment habits of the various Member States. As an example, countries like the UK or the Netherlands, where financial markets are bigger and more developed, tend to invest in financial instruments such as shares or pension funds; on the other hand, many other Member States such as Greece, Austria or Spain, are characterised by holdings of money in the form of cash and deposits that are higher than the European average (Valiante, 2016).

The fragmentation of European markets results in inconsistent taxation policies across Member States, and differing national rules, but also in different investment approaches. The establishment of pan-European regulatory enforcement institutions, which would be required for deeper integration, is hampered by political restraints, particularly those originating from the UK. In fact, despite the EU's ability to establish centralised institutions, national autonomy frequently impedes these endeavours, as it occurred for initiatives such as the Single Supervisory Mechanism (SSM) and the Single Resolution Board (SRB). National authorities' resistance to pooling regulatory enforcement at the European level causes cross-border fragmentation in the financial sector. Also, the CMU faced national political and institutional resistance as Member States were reluctant to give up part of their national sovereignty (Veron, 2015).

As the UK was a major participant in the European capital markets, the Brexit referendum in 2016 became an additional and significant obstacle for the realisation of the CMU. Brexit caused long-term fundamental changes to EU financial governance in addition to acute disruptions. Because of the UK's pivotal role in the European financial markets, Brexit significantly hampered the full achievement of the CMU project. Preceding Brexit, the United Kingdom had the most extensive financial services sector within the European Union, accounting for 35% of all wholesale financial operations. Since London was the main EU hub for market-based funding (given the UK's leading position in fund management, derivatives clearing, and private equity that greatly increased financial liquidity in the EU), the CMU's ability to diversify money across the continent was severely harmed by the UK's exit. Consequently, Brexit posed the question of whether the capital markets of the EU27, generally less developed than those of the UK, could grow to a similar depth (Moloney, 2018).

Additionally, after Brexit the EU had to turn inward, strengthening its control of the single market and giving supervisory cohesiveness within the remaining EU27 top priority. The EU was forced to review its regulatory frameworks in order to reduce financial volatility and prevent potential severe disruptions due to the UK's absence of participation.

Moloney (2018) claimed that although CMU could withstand losing the UK, it would be difficult to prevent financial disintegration and be sure of an appropriate CMU evolution and adaptation to the changes in the conditions of the surrounding environment.

Brexit might even force the EU to quicken reforms and strengthen its own financial markets, given that the CMU's success and longevity hinge on the EU's capacity to develop robust market-based financing mechanisms in the absence of the UK's substantial market infrastructure. In fact, in its CMU mid-term assessment of 2017, the European

Commission recognized that the need to fortify supervisory mechanisms, especially those provided by organisations such as ESMA, was made more pressing by Brexit. The Mid-Term Review of the Capital Markets Union Action Plan acknowledged that "[…] the future departure of the largest financial centre from the EU makes it necessary to re-assess how CMU can ensure that EU businesses and investors have access to strong, dynamic and more integrated capital markets, while risks to financial stability are properly managed. […] The departure of the United Kingdom from the Single Market reinforces the urgent need to further strengthen and integrate the EU capital market framework". The European Commission also stressed the fact that "Within the EU, the supervisory framework is a necessary element for well-functioning and integrated capital markets […] Within the EU-27, in particular ESMA's ability to ensure consistent supervision across the EU should be strengthened" (European Commission, 2017; Moloney, 2018).

Nevertheless, the exit of the UK, which had frequently opposed increased financial services integration inside the EU, gave the EU the chance to consolidate regulatory powers and enhance integration among the surviving member states. Brexit might act as a spur for the EU to reorganise its financial governance institutions, including the European Central Bank (ECB) and the European Supervisory Authorities (ESAs). All in all, Brexit compelled the EU to reconsider and reorganise its financial governance and to change the path for the CMU to reflect the new circumstances. Although the CMU's original goal was to integrate the financial markets of the EU, the post-Brexit context represented a major obstacle to be overcome in order to become increasingly independent of the UK financial markets, but it also introduced new opportunities for a better and stronger integrated financial market (Moloney, 2018).

Enacting the Action Plan 2015

The CMU Action Plan 2015 led to the development of a new regulatory framework aimed at overcoming the challenges faced throughout the process thereby facilitating the creation of a truly integrated European market.

In fact, in addition to the already mentioned reforms on the Prospectus Regulation, the Plan was instrumental for the development of five regulations developed to put into concrete actions the proposals of the Action Plan.

The Securitisation Regulation (Regulation (EU) 2017/2402) was introduced in 2017 to revitalise the European securitisation market that had plummeted and never recovered as a consequence of the severe damages caused by the Global Financial Crisis. Debt securitisation was considered a priority to be addressed by the European Commission because of its function of improving risk management in the financial system and of lessening the load on the balance sheets of the originating institutions. In fact, securitisation is the practice of converting non-fungible loans or the cash flows they generate into marketable securities. As a result, this tool significantly contributes to a healthy financial system that effectively finances the actual economy by allowing banks to add fresh credit to their balance sheets, thereby expanding their lending options to companies, especially SMEs. It serves as a crucial instrument for managing risk, capital, and liquidity in banks. Securitisation also opens up new asset classes to investors, giving long-term investors access to a variety of investment options (European Commission, 2022).

The Regulation made the already mentioned risk-based STS framework effective, with the aim to protect investors from the risks that securitisation entails (credit, default, agency, operational, and liquidity concentration risks). To further improve investor protection, the regulation also introduced the obligation to produce STS reports containing all relevant information and made institutional investors subject to new due diligence requirements (Veil, 2021).

Regulation (EU) 2019/2115 was adopted in 2019 in order to amend Directive 2014/65/EU (MiFID II), the directive that introduced the concept of "SME Growth Markets" in the EU legislative framework to make it easier for SMEs to access capital markets thereby expanding their financing options. The Regulation aimed at improving the already existing landscape by decreasing the administrative requirements to apply for and run such markets, thereby enhancing liquidity and promoting their use (Veil, 2021).

To pursue the Action Plan's objective of promoting sustainable investments, two regulations were introduced. The Sustainable Finance Disclosure Regulation (SFDR) (Regulation (EU) 2019/2088) specified a new set of standards for institutional investors for the disclosure of the sustainability of investments and the sustainability risks associated with a financial instrument.

Regulation on the Establishment of a Framework for Facilitating Sustainable Investments (Taxonomy Regulation) (Regulation (EU) 2020/852) was instead meant to find concrete ways to assess the environmental sustainability of any investment in a legally binding manner. In particular, it introduced six environmental goals and detailed the conditions that an economic activity should meet to contribute to these goals in a tangible way (Veil, 2021).

Finally, the Regulation on European Crowdfunding Service Providers (ECSP) (Regulation (EU) 2020/1503) was introduced. Crowdfunding, the technique of gathering money online via a platform for a particular cause, proved to be a financially advantageous option for start-ups as it is a valid non-bank way to finance projects. The significant expansion of this market led EU countries to produce laws aimed at regulating the crowdfunding process.

However, diverse regulatory frameworks across Member States were produced, showing differing perspectives regarding the requirements for safeguarding investors through private enforcement and supervisory legislation. The ECSP Regulation aimed at establishing an optional regulatory framework to supplement national crowdfunding legislation; as an example, a platform does not have to abide by national laws if it uses the European regime for crowdfunding services, it should simply need approval from the appropriate national supervisory authority in order to operate within the EU (Veil, 2021).

The Action Plan 2020

The Capital Markets Union initiative was given significantly more attention by the European Commission under Ursula von der Leyen's chair. The main interest was to strengthen the internal market for capital through a variety of distinct legislative and non-legislative actions in order to support employment and growth in the EU, with the ultimate goal to draw in investment (Veil, 2021).

For this reason, in September 2020, the European Commission published a new Action Plan containing several concrete measures to support the full achievement of the CMU. According to the Plan, the EU could only achieve sustained growth, competitiveness, and resilience in the global economy through robust and well-functioning financial markets.

The goal of the new Action Plan was to solve the market, regulatory, and structural issues preventing the development of an integrated capital market with the ultimate aim to facilitate cross-border savings and investment within the EU, thereby benefiting all parties involved (citizens, enterprises, and investors) regardless of their location. The strategy was built upon the first 2015 CMU Action strategy, taking into account new issues and concerns like the COVID-19 pandemic, the European Green Deal, digital transformation, and Brexit (European Commission, 2020).

The COVID-19 pandemic brought about an unparalleled economic shock. Public funding and bank loans only partially addressed the scope and duration of Europe's financial problems, even though they helped reducing immediate harm. For this reason, the Plan recognised the CMU as the primary force behind the long-term recovery, emphasising the need for liquid and sufficiently deep capital markets to support growth (European Commission, 2020). In fact, market-driven funding was considered essential in enhancing government assistance. Through the CMU, companies (SMEs in particular) could have access to a variety of funding options outside of conventional bank loans. After the epidemic, businesses struggled with high debt levels, making equity funding crucial to their expansion and restructuring. Therefore, the CMU could lessen Europe's undue reliance on a single source of funding and increase its ability to withstand future economic shocks. Additionally, the CMU would be essential for attracting the needed capital for long-term expansion in industries like infrastructure as well as for immediate recovery, given that governments, regions, and municipalities would be able to raise money through deep capital markets to boost local economies, especially when it comes to public infrastructure and social requirements (European Commission, 2020).

Sustainability was recognised by the European Commission as a key are to be addressed. In 2018, in its Sustainable Finance Action Plan (SFAP), the Commission acknowledged that the role of the that the financial sector plays as an intermediary between users and providers of capital, thereby being pivotal for the "green transition". The SFAP, together with broader European climate plans such as the Green Deal, was therefore an integral part of the CMU Action Plan. The SFAP aimed at redirect capital flows toward sustainable investment in order to attain inclusive and sustainable growth, control and mitigate financial risks associated with resource depletion, climate change, environmental degradation and social issues, and promote long-term approaches and transparency in financial and economic activities. In order to achieve these goals, the SFAP outlined specific actions aimed at creating an EU taxonomy or classification system for sustainable activities, outlining the responsibilities of asset managers and institutional investors, and enhancing sustainability disclosure for financial supervisors and investors (Busch, 2023).

According to the European Commission (2020), the Plan acknowledged that the ambitious environmental goals of the SFAP and the Green Deal would not be possible without the CMU because the demands of these transitions on investments could not be met solely by public finance. The European Commission committed to reduce the emissions of greenhouse gas by 55% within 2030, in order to meet the requirements of the European Green Deal. This would imply annual energy-related investments of an additional €350 billion. The CMU was intended to draw private finance into sustainable initiatives, thereby providing a significant support in funding the green transition and controlling environmental dangers. Additionally, the Plan recognised that substantial private investment would be needed to achieve the digital transformation mandated by the European Commission's Digital Finance Strategy. As already discussed, many cutting-edge businesses (most commonly SMEs), especially those in the technology sector, lack the tangible collateral required for bank loans, so that capital markets serve as their main source of finance. The CMU would therefore be crucial for supplying the funding needed to fuel digital innovation. The Plan also highlighted the need of the CMU as an essential tool for increasing the EU's competitiveness in the global economy by helping local businesses expand internationally and allowing smaller markets to catch up to larger ones. At the same time, a fully operational CMU would be necessary to increase the usage of the euro abroad. The attractiveness of the CMU could in fact be a way to strengthen the euro's standing internationally by luring investors from around the world to instruments denominated in euros. Brexit also stressed the need for an integrated CMU even more, as it required the resulting renewed financial architecture to be managed properly to avoid regulatory arbitrage. Finally, as it was touched upon before, the Plan considered the CMU as a crucial element for building a more resilient and inclusive economy, given that enhanced efficient and effective capital allocation through integrated capital markets would support job creation, economic expansion, and financial stability. To pursue these objectives, the CMU also highlighted the importance of effectively supporting the Retail Investment Strategy and all the improvements it could bring in, that have already been extensively discussed.

Concrete actions to achieve the CMU

In order to achieve the objectives declared in the Action Plan, the European Commission detailed 16 tangible actions to commit to, thoroughly pointing out the rationale for each of them (European Commission, 2020). Each of these actions will be summarised and briefly analysed in this section, using as a reference the Action Plan 2020 of the European Commission.

The first 6 actions, as stated in in the Action Plan by the European Commission (2020) are meant to "support a green, digital, inclusive and resilient economic recovery by making financing more accessible to companies".

Action 1 encouraged the creation of a European Single Access Point (ESAP), an integrated digital platform that would facilitate easy access to data on businesses' finances and sustainability thereby improving the uneven availability of company data within the European Union, particularly for smaller, less visible enterprises in national markets, and ultimately drawing in a wider variety of foreign investors.

Action 2 promoted a focused simplification of listing regulations, whose complexity and high compliance costs typically hampered SMEs entry into financial markets, would ease the administrative burden on smaller businesses and facilitate their access to capital, this being paramount especially in the post-crisis environment.

Action 3 recommended a revaluation of the existing European Long-Term Investment Funds (ELTIFs) legal framework in order to boost their adoption. In fact, these instruments are intended to provide long-term funding to initiatives related to sustainable energy, SMEs, and infrastructure, whose increased popularity would support the intelligent and sustainable growth pursued by the EU.

To support the aforementioned increase in long-term investment, Action 4 stressed the necessity for changes in regulation to encourage large institutional investors to extend the holding period of their investments, so that institutions such as insurers or banks would increase their exposure to long-term assets, especially equities.

Action 5 called for measures to lower the cost of searching funding solutions for SMEs and raise knowledge of non-bank financing sources, thereby supporting market-based funding. The initiative aimed at compelling a bank that denied a credit application of a SME to direct that company to other sources of funding, thus creating a more dynamic financial environment where multiple sources of finance are simultaneously available and easy to get access to.

Finally, Action 6 suggested further improvements in the regulations for securitisation, given the already discussed paramount positive impact that securitisation has on the whole financial system.

Actions 7, 8 and 9 were intended to "make the EU an even safer place for individuals to save and invest long-term", in the words of the European Commission (2020).

In conformity with the EU RIS, Action 7 recommended the development of measures aimed at improving the level of financial literacy of EU citizens, and a reform of inducement requirements and disclosure rules.

Actions 8 and 9 highlighted the need of aiding citizens save for retirement, given the EU population aging, promoting measures to simplify the oversight of pension adequacy among Member States and pushing for the implementation of the Pan-European Personal Pension Product (PEPP) to augment public pensions.

The last 7 actions dealt instead with "integrating national capital markets into a genuine single market" (European Commission, 2020).

Action 10 acknowledged that one of the biggest obstacles to international investment is taxation, as it imposes a number of barriers that prevent capital from flowing freely across borders, thereby posing a serious threat to the integration capital markets. Even if the EU promotes capital mobility, taxation remains within national sovereign jurisdiction. Because of this, there are now disparate tax laws, especially with regard to direct taxes, which makes international investment more difficult. Additionally, when making investments outside of their nation of residence, investors must pay withholding taxes on dividends, interest, and other capital gains. This frequently results in double taxation, both in the nation where the investor resides and in the nation where the money is earned. Cross-border investment may be discouraged by the complicated, time-consuming, and expensive nature of the tax refund claim process. The existing processes represent in fact a significant obstacle since they can take years to handle claims and frequently necessitate substantial documentation. International capital flows are further distorted by tax laws in certain Member States that give preference to domestic investors over foreign ones. For example, discriminatory treatment occurs when tax benefits for residents, like exemptions from some taxes, are not given to non-residents (Carpentieri et al., 2018). In an effort to cut expenses and limit tax fraud, the Commission suggested the introduction of a uniform, pan-European method for withholding tax relief at the source.

Another important deterrent for cross-border investment is represented by the uncertainty around bankruptcy laws, given the variations in legislation from one country to another. Action 11 recommended an alignment of key aspects of non-bank insolvency legislation to increase predictability and legal certainty, thereby reducing investors' uncertainty and supporting international investment.

Facilitating simpler cross-border shareholder voting was another major goal of the Action Plan 2020, smaller investors usually being unable to effectively exercise their rights due to disparities in national corporate governance regulations. By bringing shareholder rights into line at the EU level, Action 12 aimed at encouraging more participation in business decision-making.

Cross-border investment is additionally hampered by the fragmented post-trade environment in Europe. In order to enhance cross-border settlement services and reduce transaction costs, Action 13 suggested changes to the regulations governing central securities depositories (CSDs). CSDs are institutions dealing especially with securities transactions settlement and clearing. By facilitating the transfer of securities against cash flows or the transfer of collateral against an open exposure, CSDs have a crucial role in the post-trading phase. Additionally, these institutions are growing their business operations to include collateral settlement derivatives markets. To address the cross-border nature of financial markets and the systemic nature of CSDs, a single regulatory framework aimed at harmonising the structure of CSDs would be beneficial. CSDs should abide by prudential norms aimed at guaranteeing the stability and continuation of their operations, given their crucial and systemic role in the securities and collateral markets (Ferrarini et al., 2014).

As the Plan acknowledged that “A true single market cannot exist without a more integrated view of EU trading” (European Commission, 2020), Action 14 was about the implementation of a consolidated tape for equity and equity-like products with the aim to boost openness and competition amongst trading venues, thereby giving full data on trading prices and volumes throughout the EU and complementing the European Single Access Point.

Action 15 aimed at addressing the necessity of safeguarding cross-border investments inside the EU, particularly in light of the expiration of the intra-EU Bilateral Investment Treaties. The Commission aimed at reforming the investment protection legislative framework in order to guarantee consistent and uniform application in all the Member States.

Finally, in order to achieve full market integration, an alignment of supervisory practices across Member States would be needed, especially in light of the many financial centres that arose in the EU after Brexit. Action 16 was about the commitment of the Commission to define an enhanced single rulebook for capital markets while fostering an improved cooperation between national competent authorities (NCAs) and the European Securities and Markets Authority (ESMA).

The CMU as of 2024

In comparison to other major global markets like the US and the UK, the European capital markets happen to be still fragmented and underdeveloped, despite the implementation of approximately 50 legislative and non-legislative measures over the course of different action plans. By 2022, the EU held only 10% of the world's capital market activity, far less than its 19% global GDP share. This glaring difference illustrates how the EU's capital market has not developed as quickly as that of the US and the Asia-Pacific region (Truchet, 2024). A major cause of this underdevelopment is the EU's widespread reliance on bank-based finance, especially for non-financial corporations. For example, in the EU, 76% of corporate borrowings come from bank credit, while in the US that percentage is 27%; also, EU households choose to keep a larger percentage of their financial assets in cash and deposits compared to US households. (Truchet, 2024).

The lack of integration entails significant opportunity costs, including less potential for economic growth, weakened resistance to shocks, and fewer options for financial products available to EU residents. Additionally, it restricts the EU's ability to finance the shift to a digital and climate-neutral economy and inhibits innovation, especially in high-tech industries that need access to capital to finance high-risk projects (Berrigan, 2024).

Numerous variables, many of which have their roots in the complexity of the EU's capital market landscape, have contributed to the CMU's delayed progress toward its aims. The lack of strong political will behind the CMU project is one of the biggest difficulties. The European Council and Euro Summits have offered theoretical guidance, but this hasn't materialised into practical actions. As a result, during the legislative process, a number of CMU measures that the European Commission had originally recommended have been scaled back or changed, especially those that deal with securities market regulations and oversight. The intricacy of the EU legislative procedure itself is another important concern. The sluggish adoption and execution of policies, in addition to the continuous competition among Member States to improve their own financial hubs at the expense of a coordinated strategy, have been detrimental to the CMU mission. This has caused the application of CMU measures to be diluted and frequently inconsistent within the EU, which has further contributed to the fragmentation of the European capital markets.

In addition, the CMU is restricted by the boundaries of EU policymaking, as there are important domains that are not directly under EU jurisdiction but are vital to the growth and integration of EU capital markets, such as pensions, education, and taxation. (Truchet, 2024).

Implementation of important regulatory and supervisory policy decisions occurs at the regional or national level, but at varying rates and intensities depending on the jurisdiction. These discrepancies in implementation may lead to regulatory and supervisory arbitrage practices. Regulatory arbitrage occurs when businesses take advantage of differences in rules between different jurisdictions to evade stricter requirements while still complying with them. In essence, companies make use of the regulatory landscape to their benefit, all without breaking the law. This may make regulatory goals less effective, including maintaining market stability (Riles, 2013). Regulatory arbitrage is particularly harmful as it promotes a “race to the bottom” for the regulatory standards’ quality. In order to attract investments, Member States would in fact be incentivised to lower the requirements imposed on companies. This negative competition would exacerbate fragmentation and worsen the degree of investors and consumer protection, given the lower quality of products and services offered to the market that may result from less stringent requirements. International collaboration and consistent regulatory action may be able to prevent such an inefficient result and promote market integration. Member states ought to refrain from unwarranted gold-plating, and national financial authorities ought to collaborate considerably more in overseeing financial systems (EIWG, 2010).

Moreover, the substantial involvement of the private sector in market infrastructure, like post-trading systems, exacerbates the difficulty of realising a completely integrated capital market (Truchet, 2024).

Europe's post-trade environment is in fact still dominated by fragmentation and diversity, which increase uncertainties thereby exacerbating risk and inefficiencies. A portion of the problems stem from Giovannini Barriers (that is, obstacles dating back to 2001 found to be impeding effective EU cross-border settlement and clearing) that are in place or from brand-new barriers that have appeared as a result of innovative goods and new technologies. In order to establish a post-trading environment that is low-risk and low-cost, infrastructure service providers need to compete in a unified operational, legal, and regulatory framework that provides reliable, innovative, and affordable services to all users without discrimination. The CMU initiative promotes a framework for effective and focused collaboration between public agencies and the private sector to improve the post-trading environment and fostering full market integration. This should be done by addressing all the barriers that prevent a harmonised market infrastructure, including tax, asset servicing, legal, reporting, access rights, and asset segregation barriers (Burton, 2017).

Finally, the heterogeneity of the EU's capital markets, which differ greatly in terms of market maturity and structure throughout Member States, presents another difficulty. Some countries in Europe, notably those in Central and Eastern Europe, heavily rely on bank finance, while others, especially those in Northern and Western Europe, have developed capital markets. This variation makes it necessary for CMU goals and initiatives to be customised to various market conditions, thereby making the initiative more complicated to be achieved and impeding integration efforts even more (Truchet, 2024).

Interactions between product governance and the CMU

Product governance and the CMU are inherently related. On the one hand, the actions aimed at achieving a truly integrated market could reshape product governance rules by introducing new requirements. On the other hand, a strong and coherent product governance regime could support the process that leads to full market integration.

Safeguarding investors' confidence

The way in which product governance rules are designed and the main objectives they pursue may contribute at fostering the effective realisation of a CMU. One of the main objectives of product governance is to safeguard investors' trust in financial markets, restoring it after the already discussed historical occurrences that undermined confidence. Investors' trust is of paramount importance for several reasons, including the fact that it is a necessary condition for the CMU to be successfully achieved (Fines et al., 2020).

The reasons why investors' confidence in financial markets should be restored and protected have been largely discussed in chapter I. All these reasons are useful to make it clear that the primary factor promoting cross-border retail and institutional investment flows and enhancing market integration is exactly the level of confidence in the European financial markets themselves. To maintain the markets' effective operation and long-term economic and social benefits while also considering the crucial role that investors play in providing these markets with resources, investors need to be enticed back into financial markets (EIWG, 2010).

Full harmonisation

Harmonisation and uniform application of product governance regulations throughout the EU is a priority for ESMA. Harmonisation aims at reducing the variations between national markets that may cause fragmentation by standardising requirements among financial institutions and avoiding the risk of regulatory arbitrage or of differing interpretations of MiFID II across Member States. Consistent implementation of product governance procedures at a pan-European level could not only benefit investors by improving the degree of their protection, but it would reduce differences in the national markets thereby contributing to market integration (ESMA, 2023).

Sustainability

The CMU focuses, among others, on sustainability. This objective plays an important role in reshaping the product governance framework.

As it was already mentioned, two pieces of legislation dealing with sustainability were introduced to align with the objectives detailed in the CMU Action Plans, that is, the SFDR and the Taxonomy Regulation.

One of the main initiatives of the European Union to incorporate sustainability into the financial services industry is the Sustainable Finance Disclosure Regulation (SFDR), effectively entered into force in 2023, which establishes a framework for standardising sustainability-related disclosure requirements provided by financial advisers and financial market participants. Its main goal is to make sure that investors, especially retailers, have access to trustworthy, comparable, and accessible information on the sustainability risks, negative effects, and goals related to financial instruments (Ramos Muñoz et al., 2024).

The SFDR introduced harmonised guidelines on transparency regarding the incorporation of sustainability risks (defined as events related to ESG factors that, if they take place, might have a materially negative effect on the investment's value) and the evaluation of unfavourable sustainability impacts in investment practices and considerations, to be followed by financial market participants and financial advisers both in their procedures and in the dissemination of sustainability-related data pertaining to financial products. Also, the SFDR required financial intermediaries to provide sustainability information on their website, in regular reports, in marketing materials, and in precontractual material. The dissemination of information pertaining to sustainability ought to be free of cost and executed in a way that is readily available, impartial, conspicuous, unprejudiced, straightforward, lucid, equitable, and devoid of deception. (Busch, 2023).

While the SFDR is essentially a disclosure regime, it also serves as a system of product labelling for "light green" and "dark green" instruments. Nevertheless, there are no legally mandated benchmarks to support the "greenness" of these products. This may increase the risk of greenwashing and green bleaching, the former being the practice of marketing sustainable items without a strong foundation for such claims, the latter consisting in deciding not to disclose environmental, social, and governance (ESG) aspects for the products to be offered in order to save money and avoid potential legal concerns. These practices may result in the mis-selling of the financial instruments, thereby negatively affecting investors' confidence. Product governance requirements complement the SFDR framework as they are designed exactly to avoid mis-selling practices and preserve trust in financial markets (Ramos Muñoz et al., 2024).

The disclosure requirements of the SFDR are strongly related to product governance, especially when it comes to suitability evaluations. Financial institutions are required by MiFID II to make sure that the products they provide are appropriate for their clients, taking into consideration the investment goals, level of risk aversion, and sustainability preferences. By requiring sustainability-related disclosures to be published in pre-contractual material, on websites, and in periodic reports, the SFDR improves this procedure. In fact, the standards of SFDR are designed to facilitate the product governance process by guaranteeing the immediate and easy accessibility and dependability of the data required to assess a product's appropriateness. Key documentation for the product, typically the prospectus or the key information document (KID) (which are essential for the product appropriateness assessment procedure), must provide this information (Ramos Muñoz et al., 2024).

Nevertheless, there are also some potential issues concerning product governance posed by the existing SFDR system. The SFDR's complicated disclosure requirements, which may be difficult for the average investor to understand, are one major problem. The intricacy of this issue has the potential to compromise the efficacy of product governance by creating circumstances in which the target market is not adequately informed about a product's sustainability features. Additionally, inconsistencies caused by SFDR's reliance on voluntary disclosure in particular contexts can make it even harder to match product governance with sustainability objectives. It may become more challenging to guarantee that products are truly in line with the sustainability preferences of the target market as a result of these discrepancies, which can leave gaps in the information available to investors and product manufacturers (Ramos Muñoz et al., 2024).

Lastly, future SFDR revisions might improve the relationship between product governance and sustainability disclosure requirements. Clearer product categories reflecting varying degrees of sustainability goals could improve financial institutions' capacity to develop and manage products that satisfy investor demands and regulatory requirements. Additionally, more practical information disclosed under the SFRD that are also easier to understand for retail investors would help closing the gap that exists between the intricate disclosure requirements mandated by the SFDR and the necessity for transparent information required for efficient product governance (Ramos Muñoz et al., 2024).

The Taxonomy Regulation, entered into full force in 2023, provides the fundamental basis for defining more specifically what constitutes an environmentally sustainable financial activity. It ensures that economic actions do not materially undermine other environmental goals while establishing clear standards for judging whether an activity significantly advances environmental goals, such as mitigating or adapting to climate change. In particular, the Taxonomy Regulation identifies six environmental goals, namely, mitigating the effects of climate change, adapting to those effects, protecting and using water and marine resources in a sustainable way, establishing a circular economy, preventing and controlling pollution, and conserving and restoring biodiversity and ecosystems. When an economic or financial activity helps significantly with one or more of the aforementioned environmental goals while having no discernible negative effects on any other environmental goal, it is considered to be an "environmentally sustainable activity" by the Taxonomy Regulation. The relevant economic activity must also adhere to the minimal standards of protection of labour and human rights (Busch, 2023).

The Taxonomy Regulation complements and enhances the requirements detailed in the SFDR. To verify the sustainability claims made by financial institutions, the SFDR relies upon the criteria contained in the Taxonomy Regulation. Also, the benchmarks that financial products need to achieve in order to be categorised as sustainable under SFDR are provided by the Taxonomy Regulation. As financial institutions are required under product governance to make sure that their products meet regulatory requirements and are appropriate for the market in which they are designed, product manufacturers and distributors can make sure that sustainability claims are supported by verifiable environmental performance by using the criteria set forth in the Taxonomy Regulation. This cooperation between product governance and the Taxonomy Regulation helps reducing the risk of greenwashing and preventing mis-selling (de Oliveira Neves, 2022).

Digitalisation

The Action Plan (2020) recognises digitalisation as an important tool to achieve the CMU, and at the same time, the CMU as necessary to transition toward a fully digitalised financial environment.

In addition to what has been said before about digitalisation, it is interesting to focus on how artificial intelligence (AI) in particular has the potential to reshape product governance.

Financial institutions can better adapt their products to meet the specific needs of investors thanks to AI's capacity to process vast amounts of data. Improved mechanisms that allow for a better match of products with investors could result from this, thereby raising investors' satisfaction. AI could also help in the development of more responsive and dynamic products that can instantly adjust to shifting investors' preferences or market conditions (Leitner et al., 2024).

Additionally, AI may support financial institutions to integrate ESG factors into investment considerations and operations. By incorporating ESG factors into predictive models, artificial intelligence has the potential to improve sustainability risk management. For instance, financial organizations can see potential risks associated with ESG elements like labour practices or climate change by using generative AI to simulate different ESG scenarios. By assisting businesses in identifying and reducing reputational and financial risks associated with ESG concerns, this integration promotes sustainable business practices. Also, AI can be utilised to scan enormous volumes of ESG-related data, thereby enhancing the precision and transparency of ESG reports and ultimately making it easier for financial institutions to comply with the sustainability disclosure requirements imposed by the product governance regime and the SFDR (Lim, 2024).

At the same time, there are some challenges presented by AI on product governance.

Algorithmic bias is one of the main worries, as AI systems may consistently favour the realisation of particular results, which may result in discriminatory practices in product distribution or customer segmentation. For instance, an AI model's decision-making processes may reinforce or even worsen biases if it was trained on biased data. Additionally, AI models may provide outputs that seem true while actually deceptive, since choices made based on inaccurate AI results may imply severe economic losses or legal infringements such as mis-selling (Leitner et al., 2024). Other severe issues may concern data privacy and security. Security vulnerabilities take longer to resolve because AI is still in its early phases of research. Because of this, technology may be unlawfully used to pinpoint potential targets with the aim to mimic people and steal, alter, and destroy information, thereby causing financial losses. The fraudulent behaviours may in fact result in incorrect investment advice or mis-selling of financial products, to the detriment of retail investors (Ridzuan et al., 2024).

Finally, because AI is inherently complex, it might be challenging for human operators to fully comprehend and interpret its conclusions. Due to AI's "black box" nature, product governance may become less transparent and accountable, making it more difficult to pinpoint the main causes of mistakes or defend choices to customers or regulators (Leitner et al., 2024).

Challenges to CMU realisation posed by product governance

The current product governance framework may also pose some challenges for the effective realisation of the CMU, summarised and analysed using as a reference the study of Fines et al. (2020)

The most significant issue is represented by the inconsistent application and interpretation of EU rules by member states, which poses a serious obstacle to the cross-border distribution of financial products inside the European Union. These contradictions produce a disjointed regulatory framework that may hinder capital flow and jeopardise the objectives of the CMU.

Significant obstacles still exist even after a passporting mechanism was introduced under important regulatory frameworks including MiFID II, UCITS, and AIFMD, with the goal of facilitating and fostering cross-border operations. Financial institutions could be able to operate throughout all EU member states with just one permit from a single member state thanks to the passporting system. However, reality is that various local interpretations and applications of EU directives frequently compromise this system's efficacy.

The application of marketing regulations is one of the areas of inconsistency that stands out the most. Although general guidelines for the marketing and distribution of financial products are outlined in EU directives such as AIFMD and MiFID II, the details of these regulations can differ greatly between member states. For instance, there might be significant variations in the definition of "marketing" under AIFMD, which can cause confusion and legal uncertainty for financial institutions looking to expand internationally. Certain member states might have more lax rules on what can be disclosed to prospective investors prior to a product's complete registration, while others might have tougher guidelines. This puts financial institutions in a difficult situation as they must deal with these several regulatory environments in order to make sure to be fully compliant and avoid regulatory sanctions.

The process of evaluating financial product suitability for different categories of actual and potential clients is another area where disparities occur. MiFID II places stringent obligations on companies to make sure that the products they offer are appropriate for their customers, as they are required to take into consideration variables like the customer's background, experience, financial situation, and investing goals. Nevertheless, each jurisdiction may have different standards and procedures for carrying out these evaluations. While the suitability evaluation may be less strict in some member states, it may be more thorough in others, requiring substantial documentation and proof. Lack of harmonisation makes it more difficult for financial institutions to provide products consistently throughout the EU and can result in heavy operating costs as such institutions may have the necessity to modify their operations to satisfy the unique requirements of each state.

Another area where regulatory disparities are present is remarketing, which is the practice of testing the market for interest in a financial product upon its formal introduction. Before formally registering and marketing a product, fund managers can assess investor demand and make any necessary revisions through premarketing, which is a crucial stage under AIFMD. State-by-state variations exist in the premarketing regulations, nevertheless. While some jurisdictions apply rigorous limits or even outright ban some forms of premarketing, others may permit extensive premarketing operations with little to no limitations. Due to the complicated regulatory environment created by this, financial institutions must constantly monitor their premarketing efforts.

All these disparities pose serious hurdles and disincentives for financial institutions to engage in cross-border activities. Due to the lack of a single strategy, companies may frequently face the necessity to create tailored compliance plans for each jurisdiction in which they conduct business. This poses a risk to the overall effectiveness and efficiency of the passporting system, in addition to increasing the administrative load and costs related to cross-border distribution. Consequently, this may restrict financial institutions' capacity to completely benefit from the advantages of the single market, thereby hampering the CMU's objective of establishing a more competitive and integrated European financial market.

The future of the CMU

There is a renewed understanding of the crucial role the CMU must play in maintaining the region's economic competitiveness as the European Union moves into a new political cycle.

The political discourse surrounding the CMU has been rekindled by the growing realisation of the enormous investments necessary for Europe to stay up with other superpowers, especially in light of the green and digital transformations. Leaders in the EU today agree more strongly than before about the pressing need to strengthen the capital markets in order to better direct household savings within the Union into profitable ventures and preserve creative businesses (Truchet, 2024).

The CMU is thought to be essential for filling the investment gap in the EU, especially considering the substantial funding needed for the green transition, which will require an estimated €620 billion per year until 2030. The necessity to increase technological competitiveness and diversify supply chains in response to geopolitical challenges exacerbates this financial burden (Truchet, 2024). It is in fact a necessity for the EU to integrate its capital markets to remain economically competitive in the international landscape, given the intense competition from other major economies in the innovation race. In order for Europe to thrive and maintain its economic resilience, the CMU is an advantageous and essential tool (Berrigan, 2024).

The involvement of influential individuals, such as Mario Draghi and Enrico Letta in the compilation of studies on EU competitiveness and the future of the single market, further emphasises the strategic significance of the CMU in the larger framework of EU economic policy (Berrigan, 2024; Truchet, 2024).

A number of proposals are being made to revive the CMU in response to the project's increasing political backing.

For example, the Eurogroup has committed to create a set of political priorities that will strengthen national participation in the initiative and the CMU. These priorities would centre on actions that have the potential to greatly boost the expansion and integration of the EU capital markets. The advancement in the EU RIS, the creation of consolidated tapes, and the effective introduction of the ESAP are some of the major initiatives. Furthermore, the EU Listing Act is being pushed as a way to give SMEs better access to public markets. Reviving the EU securitisation market and enhancing the European sustainable finance framework are two other suggested actions (Truchet, 2024).

To support the expansion of the CMU, not only must capital markets be integrated and deepened, but outside capital may also be drawn into the EU. This could be accomplished by allowing specific jurisdictions, institutions, or capital flows to access the CMU, thereby boosting the EU's ability to finance its capital markets and lessen its reliance on countries whose policies and values diverge from the EU's. When creating such a system, attention may be paid to luring capital from nations with comparable geopolitical and economic goals, ensuring strict adherence to international regulatory (prudential) guidelines, and establishing strong oversight mechanisms (SFC, 2024).

A thorough plan involving all facets of the financial sector, such as banks, insurance providers, and institutional investors, as well as Member States is necessary for the effective implementation of the CMU. In order to create an environment that is favourable to the expansion of the capital market, this strategy should address issues like tax incentives, financial education, and pensions that are outside the direct purview of the EU (Truchet, 2024).

Also, there is a growing consensus that the CMU ought to concentrate on a smaller number of high-impact initiatives that have the potential to significantly advance the integration and expansion of the EU capital markets. These priorities should be carefully chosen in accordance with their capacity to draw in capital, aid in the financing of EU businesses, and improve market integration (Truchet, 2024). For example, the European Commission is considering measures to be taken in the future to enlarge and improve the liquidity of the EU capital markets and to align laws dealing with taxes, insolvency, and oversight in order to achieve a truly integrated single market (Berrigan, 2024).

CONCLUSION

The product governance structure and its wider impact on European financial markets have been critically analysed in this study in order to provide a complete overview of all the contributions and implications of this pivotal framework.

By guaranteeing that financial products are created and distributed in a way that suits the requirements and risk profiles of retail investors, the MiFID II's product governance framework is essential for retail investor protection. Tight protocols for identifying target markets, approving products, and conducting regular suitability evaluations are required by law to help lower the possibility of misrepresenting and mis-selling products thereby ultimately increasing investor confidence, a crucial element for the efficient and smooth functioning of financial markets. Also, by encouraging just and efficient markets, the strict transparency requirements under MiFID II have enhanced market integrity.

Although MiFID II has established a strong framework for product governance, the study has pointed out a number of implementation issues that financial institutions must deal with, including the high costs of adhering to regulations and the complexity of compliance. Strict product governance can also have paternalistic implications and restrict product availability, which could disadvantage some investor groups.

This study also focused on the interplay of product governance with the CMU. It was noted that product governance promotes the CMU's many important goals, including those related to market integration and investor protection. Possible conflicts that can prevent the complete achievement of CMU objectives, such as striking a balance between harmonisation and the various needs of distinct national markets, were also highlighted.

This analysis adds to the expanding corpus of research on financial regulation, especially when it comes to investor protection and product governance. It sheds light on how regulatory frameworks like MiFID II handle the intricacies of today's financial markets to deal with their continuous evolution while safeguarding individual investors. The study highlights for practitioners, financial institutions and regulators in particular, the significance of strong compliance frameworks and the necessity of continual adaptation to changing regulatory requirements. Furthermore, in order to prevent unduly restrictive market practices, the possible unintended implications of product governance legislation should be properly evaluated and monitored.

This study opens the field for future research. It may be of interest to focus on comparing the regulatory environments of Europe and other regions, like the US or Asia, to understand how product governance regulations are applied around the world and how effective they are in guaranteeing investor protection and influencing market behaviour. Additionally, as financial technology (FinTech) and regulatory technology (RegTech) change, improve and evolve, future studies could examine how digital tools can affect compliance with MiFID II and other regulatory frameworks, focusing especially on machine learning and artificial intelligence. A different line of study might concentrate on how product governance affects financial innovation. Tight rules are necessary to safeguard investors, but it's important to investigate if they inhibit innovation in financial services and products.

The product governance framework's implementation has unquestionably improved retail investor protection and increased market transparency while strengthening the regulatory framework of the European financial markets. Like any regulatory structure, though, the constant difficulty is striking a balance between the need for market flexibility and innovation and strong investor protection. This study contributes to enhance comprehension of these dynamics and to underscore the significance of ongoing assessment and modification of regulatory procedures to satisfy the changing demands of financial markets.

The fundamental ideas behind MiFID II will continue to be applicable as the financial landscape changes, especially in light of technological breakthroughs and the growing integration of international markets. Nevertheless, in order to guarantee that the goals of investor protection, market integrity, and economic growth are consistently met, the effectiveness of these rules will rely on the capacity of legislators, financial institutions, and researchers to foresee and address emerging issues.

BIBLIOGRAPHY

Books, papers and articles

Acharya, V.V., et al. (2010). The Financial Crisis of 2007-2009: Causes and Remedies. In Acharya, V.V. & Richardson, M. (eds.), Restoring Financial Stability: How to Repair a Failed System. Wiley. Available at SSRN: https://ssrn.com/abstract=1514984

Akerlfiof, G.A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. The Quarterly Journal of Economics, Volume 84, Issue 3, pages 488–500. https://doi.org/10.2307/1879431

Annunziata, F. (2023). Retail Investment Strategy. How to Boost Retail Investors' Participation in Financial Markets. Committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament. Bocconi Legal Studies Research Paper No. 4503351. Available at SSRN: https://ssrn.com/abstract=4503351

Arner, D. W. et al. (2016). FinTech, RegTech and the Reconceptualization of Financial Regulation. Northwestern Journal of International Law & Business, Forthcoming, University of Hong Kong Faculty of Law Research Paper No. 2016/035 Available at SSRN: https://ssrn.com/abstract=2847806

Baker, M. & Wurgler, J. (2007). Investor Sentiment in the Stock Market. Journal of Economic Perspectives, 21(2), pp. 129-152. Available at SSRN: https://ssrn.com/abstract=962706

Baker, S. R. et al. (2020). The Unprecedented Stock Market Reaction to COVID-19. The Review of Asset Pricing Studies, Volume 10, Issue 4, pages 742–758. https://doi.org/10.1093/rapstu/raaa008

Barber, B.M. and Odean, T. (2007). The Internet and the Investor. The Journal of Economic Perspectives, 15(1), 41–54. http://www.jstor.org/stable/2696538

Barber, B.M. and Odean, T. (2008). All That Glitters: The Effect of Attention and News on the Buying Behavior of Individual and Institutional Investors. The Review of Financial Studies, 21 (2), 785–818. https://doi.org/10.1093/rfs/hhm079

Bernanke, B.S. (2013). The Federal Reserve and the Financial Crisis. Princeton University Press. https://www.jstor.org/stable/j.ctt24hrrt

Bessembinder, H. (2018). Do Stocks Outperform Treasury Bills? Journal of Financial Economics (JFE), Forthcoming. Available at SSRN: https://ssrn.com/abstract=2900447

Bodie, Z. et al. (2014). Investments. McGraw-Hill Education, 10th edition. ISBN: 9780077161

Boer, M. et al. (2023). How Fragmentation is Continuing to Challenge the Provision of Cross-Border Financial Services: Issues and Recommendations. Institute of International Finance. https://www.iif.com/portals/0/Files/content/32370132_iif_scer_market_fragmentation_vf_03_02_2023.pdf

Bolognesi, E. (2023). Pros and Cons of Active Management. In: New Trends in Asset Management. Palgrave Macmillan Cham. https://doi.org/10.1007/978-3-031-35057-3_3

Bover, O. et al. (2018). The Impact of High School Financial Education on Financial Knowledge and Choices: Evidence from a Randomized Trial in Spain. Banco de Espana Working Paper No. 1801. Available at SSRN: https://ssrn.com/abstract=3116054

Burton, S. (2017). Achieving a clear vision for Europe's post-trade environment. AFME. https://www.afme.eu/News/Views-from-AFME/Details/achieving-a-clear-vision-for-europes-post-trade-environment

Busch, D. (2023). EU Sustainable Finance Disclosure Regulation. Capital Markets Law Journal, Volume 18, Issue 3, Pages 303–328. https://doi.org/10.1093/cmlj/kmad005

Carpentieri, L. et al. (2018). Removing Cross-border Tax Barriers. In Danny Busch, Emilios Avgouleas, and Guido Ferrarini (eds), Capital Markets Union in Europe. Oxford Academic. https://doi.org/10.1093/oso/9780198813392.003.0026

Cochrane, J.H. (2001). Asset Pricing. Princeton University Press. ISBN: 9780691121376

Colaert, V. (2019). Product Governance: Paternalism Outsourced to Financial Institutions? Accepted for publication in the European Business Law Review. Available at SSRN: https://ssrn.com/abstract=3455413

De Oliveira Neves, R. (2022). The EU Taxonomy Regulation and Its Implications for Companies. In: Câmara, P., Morais, F. (eds) The Palgrave Handbook of ESG and Corporate Governance. https://doi.org/10.1007/978-3-030-99468-6_13

Di Noia, C. (2024). The Role of Financial Literacy in Supporting Retail Investment Decisions. Conference "The EU Retail Investment Strategy". LUISS University, Tor Vergata University, University of Luxembourg

Directorate-General for Financial Stability, Financial Services and Capital Markets Union, European Commission (2015). Action Plan on Building a Capital Markets Union. COM (2015) 468 final. Brussels. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0468

Directorate-General for Financial Stability, Financial Services and Capital Markets Union, European Commission (2017). Mid-Term Review of the Capital Markets Union Action Plan. COM (2017) 292 final. Brussels. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017DC0292

Eldridge, D. et al. (2021). What impact does equity crowdfunding have on SME innovation and growth? An empirical study. Small Bus Econ 56, 105–120. https://doi.org/10.1007/s11187-019-00210-4

European Commission (2015). Green Paper on retail financial services. Better products, more choice, and greater opportunities for consumers and businesses. COM (2015) 630 final. Brussels. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0630

European Commission (2020). A Capital Markets Union for people and businesses-new action plan. COM (2020) 590 final. Brussels. https://eur-lex.europa.eu/resource.html?uri=cellar:61042990-fe46-11ea-b44f-01aa75ed71a1.0001.02/DOC_1&format=PDF

Fama, E.F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. The Journal of Finance, 25(2), pp.383–417. https://doi.org/10.2307/2325486

Ferran, E. (2012). Regulatory Lessons from the Payment Protection Insurance Mis-selling Scandal in the UK. European Business Organization Law Review., 13(2), pp.247-270. https://doi.org/10.1017/S1566752912000171

Ferrarini, G. et al. (2014). Regulating Financial Market Infrastructures. The Oxford Handbook on Financial Regulation. Oxford University Press. European Corporate Governance Institute (ECGI) - Law Working Paper No. 259/2014. Available at SSRN: https://ssrn.com/abstract=2450095

Frisancho, V. (2023). Spillover effects of financial education: The impact of school-based programs on parents. Journal of Financial Literacy and Wellbeing, 1(1), 138-153. doi:10.1017/flw.2023.2

Graaf, F.GB (2018). Private Placements in the Capital Markets Union: A Priority Moving in Reverse? In Danny Busch, Emilios Avgouleas, and Guido Ferrarini (eds), Capital Markets Union in Europe, Oxford Academic. https://doi.org/10.1093/oso/9780198813392.003.0014

Hobza, M. & Vondráčková, A. (2018). Target Market Under MiFID II: The Distributor's Perspective. Charles University in Prague Faculty of Law Research Paper No. 2018/II/1. Available at SSRN: https://ssrn.com/abstract=3215920

Hüfner, F. and Strych, J.O. (2022). The Impact of Retail Investors on Stock Liquidity and Crash Risk. Available at SSRN: https://ssrn.com/abstract=3973202

Jensen, M.C. (1968). The Performance of Mutual Funds in the Period 1945-1964. Journal of Finance, Vol. 23, No. 2, pp. 389-416. Available at SSRN: https://ssrn.com/abstract=244153

Kaiser, T. & Lusardi, A. (2024). Financial Literacy and Financial Education: An Overview. National Bureau of Economic Research (NBER), Working Paper 32355. Available at SSRN: https://ssrn.com/abstract=4802570

Kakhbod, A. et al. (2023). Finfluencers. Swiss Finance Institute Research Paper No. 23-30. Available at SSRN: https://ssrn.com/abstract=4428232

Khan, M.N. et al. (2024). The impact of the COVID 19 pandemic on stock market volatility: evidence from a selection of developed and emerging stock markets. SN Bus Econ 4, 63. https://doi.org/10.1007/s43546-024-00659-w

Leitner, G. et al. (2024). The rise of artificial intelligence: benefits and risks for financial stability. European Central Bank. Published as part of the Financial Stability

Review. https://www.ecb.europa.eu/press/financial-stability-publications/fsr/special/html/ecb.fsrart202405_02~58c3ce5246.en.html

Levine, R. (2005). Chapter 12 Finance and Growth: Theory and Evidence. In Aghion, P. & Durlauf, S.N. (eds.), Handbook of Economic Growth. Vol. 1A, pp. 865-934. Elsevier. https://doi.org/10.1016/S1574-0684(05)01012-9

Lim, T. (2024). Environmental, social, and governance (ESG) and artificial intelligence in finance: State-of-the-art and research takeaways. Artificial Intelligence Review 57, 76. https://doi.org/10.1007/s10462-024-10708-3

Lusardi, A. et al. (2013). The Economic Importance of Financial Literacy: Theory and Evidence. GFLEC Working Paper Series No. 2014-001. Available at SSRN: https://ssrn.com/abstract=2260193

Mishkin, F.S. (2019). The Economics of Money, Banking, and Financial Markets. 12th ed. Pearson. ISBN: 9781292268859

Moloney, N. (2014). EU Securities and Financial Markets Regulation. Oxford University Press. ISBN: 9780199664344

Moloney, N. (2018). Brexit and financial services: (yet) another re-ordering of institutional governance for the EU financial system? LSE Research Online Documents on Economics from London School of Economics and Political Science, LSE Library. Published in Common Market Law Review, 1, 55(3), pp. 175-201. https://eprints.lse.ac.uk/87409/1/Moloney_Brexit%20and%20finacial%20services_2018_author.pdf

Moloney, N. (2023). EU financial market regulation a decade from the financial-crisis-era reforms: crisis, uncertainty, and capacity, Yearbook of European Law, Volume 42, Pages 169–209. https://doi.org/10.1093/yel/yead008

Morlino, S. (2015). La Product Governance nel Nuovo Regime MiFID II. Studio Legale Tributario EY. DB. https://www.dirittobancario.it/wp-content/uploads/sites/default/files/allegati/morlino_s._la_product_governance_nel_nuovo_regime_mifid_2_2015.pdf

Olawale, O. et al. (2024). RegTech innovations streamlining compliance, reducing costs in the financial sector. GSC Advanced Research and Reviews, 19(01), pp. 114–131. https://doi.org/10.30574/gscarr.2024.19.1.0146

Ozik, G. et al. (2021). Flattening the Illiquidity Curve: Retail Trading During the COVID-19 Lockdown. Journal of Financial and Quantitative Analysis, pages 2356-2388. Available at SSRN: https://ssrn.com/abstract=3663970

Pagano, M. S. et al. (2021). How did retail investors respond to the COVID-19 pandemic? The effect of Robinhood brokerage customers on market quality. Finance Research Letters, Volume 43. https://doi.org/10.1016/j.frl.2021.101946

Remund, D.L. (2010), Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy. Journal of Consumer Affairs, 44: 276-295. https://doi.org/10.1111/j.1745-6606.2010.01169.x

Ridzuan, N.N. et al. (2024). AI in the Financial Sector: The Line between Innovation, Regulation and Ethical Responsibility. Special Issue Feature Papers in Artificial Intelligence 2024. Information 2024, 15(8), 432. https://doi.org/10.3390/info15080432

Riles, A. (2013). Managing Regulatory Arbitrage: A Conflict of Laws Approach. Cornell University Law School. Available at SSRN: https://ssrn.com/abstract=2335338

Romagnoli, A., Trifilidis, M. (2013). Does Financial Education at School Work? Evidence from Italy. Bank of Italy Occasional Paper No. 155. Available at SSRN: https://ssrn.com/abstract=2260330

Shiller, R.J. (2015). Irrational Exuberance. Princeton University Press. Revised and expanded 3rd edition. https://doi.org/10.2307/j.ctt1287kz5

Sushko, V. et al. (2018). The implications of passive investing for securities markets. BIS Quarterly Review. https://www.bis.org/publ/qtrpdf/r_qt1803j.htm

Thakor, A.V. (2015). The Financial Crisis of 2007-2009: Why Did It Happen and What Did We Learn? The Review of Corporate Finance Studies, Volume 4, Issue 2, Pages 155–205. https://doi.org/10.1093/rcfs/cfv001

Valiante, D. (2016). Europe's Untapped Capital Market: Rethinking financial integration after the crisis. CEPS Paperback, London: Rowman & Littlefield International. ISBN: 978-1-78660-044-8. https://www.researchgate.net/publication/307415340_Europe's_Untapped_Capital_Market_Rethinking_Financial_Integration_After_the_Crisis#fullTextFileContent

Van Rooij, M. et al. (2011). Financial literacy and stock market participation. Journal of Financial Economics, Volume 101, Issue 2, Pages 449-472. https://doi.org/10.1016/j.jfineco.2011.03.006

Veil, R. (2021). European Capital Markets Law. Hart, 3rd edition. ISBN 9781509942121

Veron, N. (2015). Europe's capital markets union and the new single market challenge. VoxEU-CEPR. https://cepr.org/voxeu/columns/europes-capital-markets-union-and-new-single-market-challenge

Werner, A. et al. (2020). The European Capital Markets Union and its Impact on Future SME Financing. In: Moritz, A., Block, J.H., Golla, S., Werner, A. (eds) Contemporary Developments in Entrepreneurial Finance. FGF Studies in Small Business and Entrepreneurship. https://doi.org/10.1007/978-3-030-17612-9_2

Reports

Bank for International Settlements (BIS) (1999). Market Liquidity: Research Findings and Selected Policy Implications. https://www.bis.org/publ/cgfs11.htm

Berrigan, J. (2024). Capital markets union. State of play – and looking forward to future priorities in the next political cycle. https://finance.ec.europa.eu/news/capital-markets-union-2024-04-10_en

European Commission (2022). Report From the Commission to the European Parliament and the Council On the functioning of the Securitisation Regulation. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0517

European Commission (2023). Proposal for a Directive Of The European Parliament And Of The Council amending Directives (EU) 2009/65/EC, 2009/138/EC, 2011/61/EU, 2014/65/EU and (EU) 2016/97 as regards the Union retail investor protection rules. resource.html (europa.eu)

European Commission Private placement of debt study (2017). Identifying market and regulatory obstacles to the development of private placement of debt in the EU. Study: Identifying market and regulatory obstacles to the development of private placement of debt in the EU (europa.eu)

European Investors Working Group (EIWG) (2010). Restoring Investor Confidence in European Capital Markets. Microsoft Word - EIWG Final Report.doc (ceps.eu)

European Securities and Markets Authority (ESMA) (2021). MiFID II review report on the functioning of the regime for SME Growth Markets. final_report_on_sme_gms_-_mifid_ii.pdf (europa.eu)

European Securities and Markets Authority (ESMA) (2023). ESMA Guidelines on MiFID II Product Governance Requirements. ESMA35-43-3448 Final report on MiFID II guidelines on product governance (europa.eu)

Fines, O. et al. (2020). The Brave New World of Product Governance in the Eu Asset Management Industry. How MiFID II and PRIIPs have modified the rules of the game for manufacturers and distributors. https://www.cfainstitute.org/-/media/documents/article/position-paper/cfa-product-governance-web-4pp.ashx

Hallak, I. (2024). Retail Investor Package. European Parliamentary Research Service. Retail investor package (europa.eu)

Institute of International Finance (IIF) (2016). Regtech in Financial Services: Solutions for Compliance and Reporting. https://www.iif.com/portals/0/Files/content/RegTech%20in%20Financial%20Servies.pdf

OECD (2015). Crowdfunding for SMEs. In New Approaches to SME and Entrepreneurship Financing: Broadening the Range of Instruments. 9789264240957-8-en.pdf (oecd-ilibrary.org)

OECD (2023). New retail investors in France: Attitudes, Knowledge and Behaviours. OECD Publishing, Paris. 2cd2565d-en.pdf (oecd-ilibrary.org)

OECD (2023). OECD/INFE 2023 International Survey of Adult Financial Literacy. OECD Business and Finance Policy Papers, No. 39, OECD Publishing, Paris. 56003a32-en.pdf (oecd-ilibrary.org)

OECD (2024), PISA 2022 Results (Volume IV): How Financially Smart Are Students? PISA, OECD Publishing, Paris. 5a849c2a-en.pdf (oecd-ilibrary.org)

Ramos Muñoz, D. et al. (2024). The current Implementation of the Sustainability-related Financial Disclosures Regulation (SFDR). https://www.europarl.europa.eu/RegData/etudes/STUD/2024/754212/IPOL_STU(2024)754212_EN.pdf

Ravelli, J. et al. (2024). Bespoke Private Placements: An Alternative Source of Debt Funding in Europe. In Norton Rose Fullbright publications. Bespoke Private

Placements: An Alternative Source of Debt Funding in Europe | United States | Global law firm | Norton Rose Fulbright

Regan, S. et al. (2022). Can compliance keep up with warp-speed change? https://www.accenture.com/gb-en/insights/consulting/compliance-risk-study

SFC (2024). Swiss Finance Council position paper on future of CMU. https://www.swissfinancecouncil.org/images/Positions/SFC%20position%20on%20future%20of%20CMU_.pdf

Spivack, P.S. et al. (2020). The Evolution of Compliance: How Did We Get Here? The Evolution of Compliance: How Did We Get Here? - Lexology

Truchet, M. (2024). CMU future steps. Eurofi. https://www.eurofi.net/wp-content/uploads/2024/03/eurofi_cmu-future-steps_ghent_february_2024.pdf